

PatBase - Search results 10 September 2018

Search query (4): fn=(62658595:160 or 34299707:150 or 55351406:130 or 42116265:130 or 70087204:120 or 58631254:120 or 66945781:110 or 65576794:110 or 64549554:110 or 64288808:110 or 62569273:110 or 62548528:110 or 59607426:110 or 58453571:110 or 55718611:110 or 55703395:110 or 55198454:110 or 53654962:110 or 53416229:110 or 31800949:110 or 30896654:110 or 29389476:110 or 28822398:110 or 20295298:110 or 8743703:110 or 1538536:110 or 62412101:100 or 54699056:100 or 54120777:100 or 50472778:100 or 48219837:100 or 44964716:100 or 41557324:100 or 10557535:100 or 9557281:100 or 3839325:100 or 69445366:90 or 68084091:90 or 67652572:90 or 66936062:90 or 66282837:90 or 66281670:90 or 66204827:90 or 66162070:90 or 66162022:90 or 66162018:90 or 66103733:90 or 65495063:90 or 65393012:90 or 64814422:90 or 64288821:90 or 64288813:90 or 62805754:90 or 61860700:90 or 61594139:90 or 61378832:90 or 61267644:90 or 61131200:90 or 60278405:90 or 59103427:90 or 58643807:90 or 58643673:90 or 58643666:90 or 56419686:90 or 56035518:90 or 56032930:90 or 55525053:90 or 55376592:90 or 55352807:90 or 55351407:90 or 54155248:90 or 53651032:90 or 52173054:90 or 51805910:90 or 47204381:90 or 43119571:90 or 43081420:90 or 43030900:90 or 42725581:90 or 42664054:90 or 42139654:90 or 41555294:90 or 34253169:90 or 34068540:90 or 33902391:90 or 33702402:90 or 32302626:90 or 32067209:90 or 31811636:90 or 31452230:90 or 30787022:90 or 29419970:90 or 28889035:90 or 28612971:90 or 28542988:90 or 28345469:90 or 23359209:90 or 15367909:90 or 12976247:90 or 12541103:90)

Results: 100**Search history**

Search PN=(WO2016/092196) (Results 1)

1:

Search [SP]: 1. a glazing essentially consisting of a transparent polymer material sheet having a thickness of from 5 to 25 mm and a glass sheet
2: having a thickness of between 0.5 and 1.5 mm, which are bonded to one another by an adhesive interlayer, a hardness of the adhesive interlayer at a temperature at least equal to -5 degrees centigrade is at most equal to 70 shore a and a thickness of the adhesive interlayer is a decreasing function of a thickness of the glass sheet, an adhesive interlayer thickness of 2.5 mm being sufficient for a glass sheet thickness of 0.55 mm and an adhesive interlayer thickness of 1.25 mm being sufficient for a glass sheet thickness of 1.25 mm. 2. the glazing as claimed in claim 1, wherein the transparent polymer material is selected from poly(methyl methacrylate) and polycarbonate. 3. the glazing as claimed in claim 1, wherein the thickness of the glass sheet is at most equal to 1.4 mm. 4. the glazing as claimed in claim 3, wherein the thickness of the glass sheet is at most equal to 1.3 mm. 5. the glazing as claimed in claim 4, wherein the thickness of the glass sheet is at most equal to 1.2 mm. 6. the glazing as claimed in claim 5, wherein the thickness of the glass sheet is at most equal to 1.1 mm. 7. the glazing as claimed in claim 6, wherein the thickness of the glass sheet is at most equal to 1.0 mm. 8. the glazing as claimed in claim 1, wherein a thickness of the transparent polymer material sheet is at most equal to 20 mm. 9. the glazing as claimed in claim 8, wherein the thickness of the transparent polymer material sheet is at most equal to 15 mm. 10. the glazing as claimed in claim 9, wherein the thickness of the transparent polymer material sheet is at most equal to 12 mm. 11. the glazing as claimed in claim 1, wherein a face of the glass sheet oriented toward the adhesive interlayer bears a heating layer. 12. the glazing as claimed in claim 1, wherein the adhesive interlayer(s) is (are) selected from thermoplastic polyurethane, polyvinyl butyral, ethylene/vinyl acetate and a resin such as 13. the glazing as claimed in claim 1, wherein said transparent polymer material sheet is monolithic or consists of several plies laminated together. 14. a method comprising mounting a glazing as claimed in claim 1 on a terrestrial, airborne or water-borne transport vehicle, a surface of which in contact with the external atmosphere consists of said glass sheet, 15. the glazing as claimed in claim 12, wherein the resin is an ionomer resin. (Results 0)

Search [SP]: [0001] the invention relates to laminated glazings consisting of a thick transparent polymer material sheet and a thin mineral glass sheet, which are bonded to one another by an adhesive interlayer.[0002] the specific problem posed by this type of structure is that of the differential thermal expansion between the polymer material and the mineral glass at the temperatures for assembling the laminates, referred to as a bimaterial strip effect. the polymer material sheet is bonded to the glass sheet by means of a thermoplastic adhesive. the bonding requires heating from ambient temperature to 100-120 degrees centigrade depending on the nature of the polymer material, and preferably to a temperature slightly above 80 degrees centigrade, then cooling to ambient temperature. during cooling, the polymer material shrinks much more than the thin glass which then has a tendency to deform by forming ripples: this is also referred to as hillocking. the optical quality of the laminate is of course seriously affected thereby.[0003] the inventors have realised that the choice of the nature and of the thickness of the adhesive interlayer made it possible, in very rare cases, to eliminate hillocking.[0004] this objective was therefore able to be achieved by the invention, one subject of which is consequently a glazing essentially consisting of a transparent polymer material sheet having a thickness of from 5 to 25 mm and a glass sheet having a thickness of between 0.5 and 1.5 mm, which are bonded to one another by an adhesive interlayer, the hardness of which at a temperature at least equal to -5 degrees centigrade is at most equal to 70 shore a and the thickness of which is a decreasing function of the thickness of the glass sheet, an adhesive interlayer thickness of 2.5 mm being sufficient for a glass sheet thickness of 0.55 mm and an adhesive interlayer thickness of 1.25 mm being sufficient for a glass sheet thickness of 1.25 mm.[0005] within the meaning of the invention, glass is understood to mean any type of mineral glass such as soda-lime float glass which is optionally chemically strengthened, aluminosilicate glass which is optionally chemically strengthened, with or without alkali metals, borosilicate glass, aluminoborosilicate glass, etc. [0006] owing to the low hardness level and the considerable thickness of the adhesive layer according to the invention, a perfectly even, ripple-free surface of glass sheets as thin as 0.5 mm thick, laminated with the thick sheet of polymer material, is benefited from.[0007] without difficulty, it is also possible to obtain the customary qualities required for glazings in demanding applications such as aeronautics, in particular resistance to ambient usage temperatures as low as -40 degrees centigrade, bird strike resistance, indentation-gravel impact resistance, scratch resistance, etc.[0008] the threshold of -5 degrees centigrade for determining the hardness corresponds substantially to the minimum temperature reached by the adhesive interlayer in the presence of glazing with a heating layer.[0009] according to preferred features of the glazing of the invention: the transparent polymer material is selected from poly(methyl methacrylate) and polycarbonate the thickness of the glass sheet is at most equal to 1.4 mm and, in order of increasing preference, 1.3, 1.2, 1.1 and 1.0 mm the thickness of the transparent polymer material sheet is at most equal to 20 mm and, in order of increasing preference, 15 and 12 mm the face of the glass sheet oriented toward the adhesive interlayer bears a heating layer one example thereof is a 200 nm thick layer of indium tin oxide (ito or else tin-doped indium oxide), which is a mixed oxide or a mixture obtained from oxides of indium (iii) (in2o3) and of tin (iv) (sno2), preferably in weight proportions of between 70 percent and 95 percent for the first oxide and 5 percent to 20 percent for the second oxide a typical weight proportion is around 90 percent by weight of in2o3 to around 10 percent by weight of sno2 owing to the relatively small thickness of the glass sheet, the heating power may be reduced relative to that which would be required by thermal conduction through a thicker glass sheet, frequently having a thickness of 3 mm for example the adhesive interlayer(s) is (are) selected from thermoplastic polyurethane, polyvinyl butyral, ethylene/vinyl acetate and a resin such as an ionomer resin they may provide functionalities such as acoustic insulation, increased mechanical strength, especially ballistic resistance, etc.said transparent polymer material sheet is monolithic or consists of several plies laminated together.[0016] one subject of the invention is moreover the application of a glazing as described above for a terrestrial, airborne or water-borne transport vehicle, the surface of which in contact with the external atmosphere consists of one said glass sheet. this glass sheet offers an excellent mechanical resistance, with respect to scratches and indentations, and protects the surface of the underlying transparent polymer material. it guarantees the preservation of the original visual appearance of the surface of the glazing, which is essentially free of marks, and the maintaining of excellent optical and transparency quality.[0017] the invention will be better understood in light of the following example.example[0018] a 9 mm thick sheet of poly(methyl methacrylate) is bonded to a 0.55 mm or 1.25 mm thick sheet of soda-lime-silica float glass chemically strengthened by an adhesive interlayer having a thickness of 1.25 mm or 2.5 mm consisting of polyvinyl butyral which is compatible with the pmma, sold by saflex under the registered trademark saflex(r) pvb db, or of thermoplastic polyurethane sold by huntsman under the registered trademark krystalflex(r) pe 499.[0019] at 20 degrees centigrade, the hardness of saflex(r) pvb db is 95 shore a and that of the krystalflex(r) pe 499 tpu is 65 shore a.[0020] six laminated glazings are assembled, having the features recorded in the table below.thickness ofthickness ofthickness ofthickness ofsample no.glass mmpvb mmtpu mmpmma mm10.551.250920.5501.25930.552.50940.5502.5951.251.250961.2501.259[0021] these six laminates are subjected to the polarized light test (plane polariscope) which makes it possible to visualize the stresses in the laminate. [0022] this test consists in exposing the sample to a source of polarized light and in observing the sample through a polarized filter.[0023] the stress levels in the material are shown by the observation of color fringes known as isochromatics.[0024] a zero stress level gives a black color when the stress levels increase, the cold colors (blue, green) decrease in order to give way to hot colors (yellow, red).[0025] an absence of stresses is only observed for the laminated glazings 4 and 6. it guarantees that the bimaterial strip effect described above does not occur, and that rippling of the thin glass sheets should not be expected for the laminated glazings 4 and 6. this is in accordance furthermore with direct visual observation through these glazings or using a shadow technique: specifically, no rippling is seen on the laminated glazings 4 and 6, unlike the other laminated glazings. (Results 0)

Search fn=(62658595:160 or 34299707:150 or 55351406:130 or 42116265:130 or 70087204:120 or 58631254:120 or 66945781:110 or 65576794:110 or 64549554:110 or 64288808:110 or 62569273:110 or 62548528:110 or 59607426:110 or 58453571:110 or 55718611:110 or 55703395:110 or 55198454:110 or 53654962:110 or 53416229:110 or 31800949:110 or 30896654:110 or 29389476:110 or 28822398:110 or 20295298:110

or 8743703:110 or 1538536:110 or 62412101:100 or 54699056:100 or 54120777:100 or 50472778:100 or 48219837:100 or 44964716:100 or 41557324:100 or 10557535:100 or 9557281:100 or 3839325:100 or 69445366:90 or 68084091:90 or 67652572:90 or 66936062:90 or 66282837:90 or 66281670:90 or 66204827:90 or 66162070:90 or 66162022:90 or 66162018:90 or 66103733:90 or 65495063:90 or 65393012:90 or 64814422:90 or 64288821:90 or 64288813:90 or 62805754:90 or 61860700:90 or 61594139:90 or 61378832:90 or 61267644:90 or 61131200:90 or 60278405:90 or 59103427:90 or 58643807:90 or 58643673:90 or 58643666:90 or 56419686:90 or 56035518:90 or 56032930:90 or 55525053:90 or 55376592:90 or 55352807:90 or 55351407:90 or 54155248:90 or 53651032:90 or 52173054:90 or 51805910:90 or 47204381:90 or 43119571:90 or 43081420:90 or 43030900:90 or 42725581:90 or 42664054:90 or 42139654:90 or 41555294:90 or 34253169:90 or 34068540:90 or 33902391:90 or 33702402:90 or 32302626:90 or 32067209:90 or 31811636:90 or 31452230:90 or 30787022:90 or 29419970:90 or 28889035:90 or 28612971:90 or 28542988:90 or 28345469:90 or 23359209:90 or 15367909:90 or 12976247:90 or 12541103:90) (Results 100)

Title: LAMINATE OF A THICK POLYMER MATERIAL SHEET AND OF A THIN GLASS SHEET

Abstract: A glazing includes a transparent polymer material sheet having a thickness of from 5 to 25 mm and a glass sheet having a thickness of between 0.5 and 1.5 mm, which are bonded to one another by an adhesive interlayer, the hardness of which at a temperature at least equal to -5 degrees centigrade is at most equal to 70 Shore A and the thickness of which is a decreasing function of the thickness of the glass sheet, an adhesive interlayer thickness of 2.5 mm being sufficient for a glass sheet thickness of 0.55 mm and an adhesive interlayer thickness of 1.25 mm being sufficient for a glass sheet thickness of 1.25 mm.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/06 (Advanced/Invention)

CPC: B32B17/10761 B32B17/10018 B32B17/10743 B32B17/1077 B32B17/10788 B32B2333/12 B32B2369/00

Family:

Publication number	Publication date	Application number	Application date
BR112017011280 A2	20180403	BR20171111280	20151208
CN107000387 A	20170801	CN201580067211	20151208
CO20170005580 A2	20170818	CO20170005580	20170605
EP3230059 A1	20171018	EP20150817976	20151208
FR3029836 A1	20160617	FR20140062264	20141211
FR3029836 B1	20161223	FR20140062264	20141211
IN201717018505 A	20171117	IN201717018505	20170526
MX2017007406 A1	20171106	MX20170007406	20151208
US2017341344 AA	20171130	US20150534842	20151208
WO16092196 A1	20160616	WO2015FR53367	20151208

Priority:

FR20140062264 20141211 WO2015FR53367 20151208

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): CATHERINE DESCUSSE ; CHAUSSADE PIERRE ; DESCUSSE CATHERINE ; GREGOIRE MATHEY ; MATHEY GREGOIRE ; MICHEL ROUBY ; PIERRE CHAUSSADE ; ROUBY MICHEL

Agent(s): MARGARITA CASTELLANOS ABONDANO; SAINT GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR PRODUCING LAMINATED GLASS COMPOSED PARTLY OF PLASTIC SHEET, AND LAMINATED GLASS

Abstract: There is provided a novel laminated glass composed partly of plastic sheet advantageous in light weight property, obtainable by the step of laminating a plastic sheet having the first interlayer film adhered to one side thereof and an inorganic glass sheet having the second interlayer film adhered to one side thereof through the first and second interlayer films interposed therebetween, which warps little, exhibits almost no perspective distortion, exhibits satisfactory adhesion between the plastic sheet and the inorganic glass sheet through the interposed interlayer films, and is excellent in transparency.

Classifications:

International (IPC 8-9): B29C65/40 B29C65/52 B32B17/10 B32B27/28

B32B37/00 B32B37/16 C03C27/12 (Advanced/Invention);

B32B17/10 B32B27/28 C03C27/12 (Advanced/Non-invention);

B32B17/06 B32B27/28 B32B37/00 C03C27/12 (Core/Invention)

International (IPC 1-7): C03C27/12

CPC: Y10T428/269 B32B17/10018 B32B17/10743 B32B17/10761

B32B17/1077 B32B17/10788 B32B27/08 B32B2333/12 B32B2369/00

B32B17/10605

European: B32B17/10C2 B32B17/10G24 B32B17/10G28 B32B17/10G30

B32B17/10G36 B32B27/08 L32B333/12 L32B369/00

US: 156/106 156/106S 156/99 156/99S 428/339 428/339P 428/426

428/426S

PatBase - KR20080044316_1A		실시예 1	실시예 2	실시예 3	실시예 4
합판 층의 두께 (mm)	번 ①	0.04	0.08	0.03	0.06
	번 ②	0.09	0.07	0.03	0.08
	번 ③	0.01	0.04	0.04	0.11
	번 ④	0.05	0.08	0.07	0.06
실용 평균 조도	제1 중간막	2.1	1.5	1.7	1.2
	제2 중간막	1.7	2.5	1.9	2.1
중간막과 플라스틱판의 계면에서의 각도		없음	없음	없음	없음
중간막과 무기유리판의 계면에서의 각도		없음	없음	없음	없음
제1 중간막과 제2 중간막의 계면에서의 각도		없음	없음	없음	없음
합판 층의 백색도 (%)		0.8	0.9	0.9	0.8

Family:

Publication number	Publication date	Application number	Application date
CA2618158 AA	20080206	CA20062618158	20060828
CN101300133 A	20081105	CN200680040535	20060828
EP1930150 A1	20080611	EP20060783109	20060828
EP1930150 A4	20110323	EP20060783109	20060828
JP2007029541 A1	20090319	JP20070534341T	20060828
JP2012035633 A2	20120223	JP20110233298	20111024
JP4951515 B1	20120613	JP20070534341T	20060828
JP4951515 B2	20120613	JP20070534341T	20060828
KR20080044316 A	20080520	KR20087007805	20060828
MX2008002827 A1	20080327	MX20080002827	20060828
RU2008112308 A	20091010	RU20080112308	20060828
TH87782 A	20071130	TH20061004176	20060831
US2009246517 AA	20091001	US20060991290	20060828
WO07029541 A1	20070315	WO2006JP316880	20060828

Priority:

JP20050253722	20050901	JP20050253726	20050901	JP20050253732	20050901
JP20050253735	20050901	JP20070534341	20060828	JP20070534341T	20060828
WO2006JP316880	20060828	WO2006JP16880	20060828	JP20110233298	20111024

Probable Assignee: SEKISUI CHEMICAL CO LTD

Assignee(s): (std): HATTA BUNGO ; SEKISUI CHEMICAL CO LTD

Assignee(s): SEKISUI CHEM CO LTD ; SEKISUI CHEMICAL CO

Inventor(s): (std): BUNGO HATTA ; HATTA BUNGO

Agent(s): TORYS LLP; WELLER WOLFGANG ET AL; IWATANI RYO; WENDEROTH LIND AND PONACK LLP

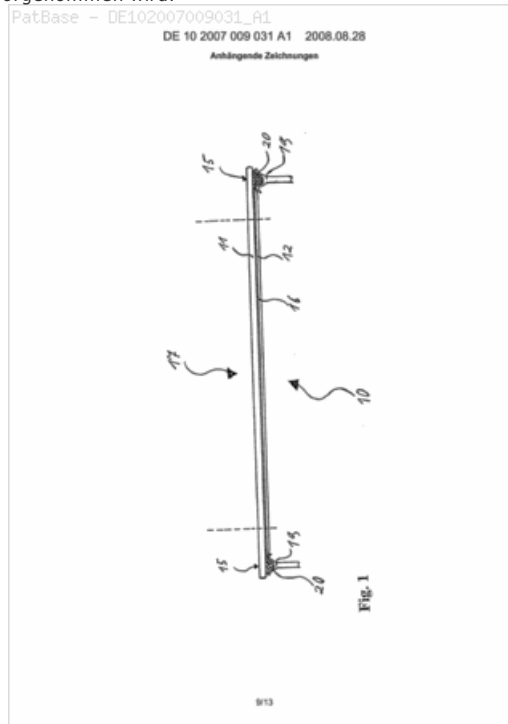
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Title: Verfahren zur Herstellung einer Scheibenanordnung fuer ein Fahrzeug oder Bauwerk

Abstract: Source: DE102007009031B4 [DE] Verfahren zur Herstellung einer Scheibenanordnung fuer ein Fahrzeug oder Bauwerk, umfassend eine Glasscheibe (11) sowie ein mit der Glasscheibe (11) fest verbundenes, insbesondere auflaminiertes, wenigstens teilweise transparentes Splitterschutzelement (12), wobei Glasscheibe (11) und Splitterschutzelement (12) an jeweiligen Verbindungsflaechen (24, 25) vollflaechig unmittelbar oder mittelbar verbunden sind, umfassend die folgenden Schritte: - Bereitstellen der vorgereinigten Glasscheibe (11), - Nachreinigen der Glasscheibe (11) durch Einwirkung von Heissdampf und - Zusammenbringen der Glasscheibe (11) und des Splitterschutzelements (12) ggf. unter Einbindung von Zwischenlagen oder - schichten in einem Laminationsprozess, wobei die Beaufschlagung mit Heissdampf unmittelbar vor Zusammenbringen von Glasscheibe (11) und Splitterschutzelement (12) vorgenommen wird.

Classifications:

International (IPC 8-9): B08B3/00 B32B17/10 B32B37/10 B32B38/00 B32B38/16 C03C27/12 (Advanced/Invention); B32B17/06 B32B37/10 B32B38/00 (Core/Invention)
CPC: B32B38/162 B08B3/00 B32B17/10018 B32B17/10302 B32B17/10761 B32B17/1077 B32B17/10788 B32B2310/049 B32B2315/08 B32B2331/04 B32B2333/12 B32B2367/00 B32B2369/00
European: B08B3/00 B32B17/10C2 B32B17/10E16B B32B17/10G28 B32B17/10G30 B32B17/10G36 B32B38/16A L32B310/04D L32B315/08 L32B331/04 L32B333/12 L32B367/00 L32B369/00



Family:

Publication number	Publication date	Application number	Application date
■ DE102007009031 A1	20080828	DE200710009031	20070223
■ DE102007009031 B4	20120614	DE200710009031	20070223

Priority:

DE200710009031 20070223

Probable Assignee: WEBASTO AG

Assignee(s): (std): WEBASTO AG

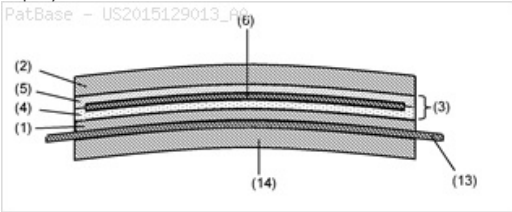
Inventor(s): (std): BOZINOVIC TOMISLAV ; ENGL ANDREAS ; KRON STEFAN ; STREICHER HERBERT

Title: ROOF PANEL HAVING AN INTEGRATED PHOTOVOLTAIC MODULE

Abstract: A roof panel having an integrated photovoltaic module is described. The roof panel has at least a substrate and an outer panel, which are laminarily bonded to each other by means of a thermoplastic layer, wherein a photovoltaic layer system is embedded in the thermoplastic layer and the substrate contains at least one polymer.

Classifications:

International (IPC 8-9): B32B17/10 B32B7/02 B60J7/00 B60L8/00 B60R16/04 B62D25/06 B62D29/04 H01L31/048 H01L31/05 H01L31/073 H01L31/0735 H01L31/0749 H01L31/18 H01L51/44 (Advanced/Invention)
CPC: H01L31/073 H01L31/0735 H01L31/0749 H01L51/448 H01L31/18 B60L8/003 H01L31/048 B32B17/10018 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10871 B32B17/10889 B32B2327/12 B32B2333/12 B32B2369/00 B62D25/06 B62D29/043 H01L31/0488 Y02B10/12 Y02E10/50 Y02T10/90
US: 136/245 438/66



Family:

Publication number	Publication date	Application number	Application date
CN104334384 A	20150204	CN201380029543	20130517
EP2855180 A1	20150408	EP20130725602	20130517
JP2015521388 T2	20150727	JP20150515457T	20130517
JP6328105 B2	20180523	JP20150515457T	20130517
KR20150013668 A	20150205	KR20147033849	20130517
US2015129013 AA	20150514	US20130400719	20130517
US10056515 BB	20180821	US20130400719	20130517
WO13182398 A1	20131212	WO2013EP60245	20130517

Priority:

EP20120170870 20120605 EP20130725602 20130517 WO2013EP60245 20130517

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN SA

Assignee(s): SAINT GOBAIN GLASS FRANCE SA ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): NEUMANN DIRK ; NOSITSCHKA ANDREAS ; PRAST MARC OLIVER ; REMY PASCAL ; STOFFEL HARALD

Agent(s): GEBAUER DIETER EDMUND; STEINFL AND BRUNO LLP; LENDVAI TOMAS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LIGHT-WEIGHT, HIGH STIFFNESS GLASS LAMINATE STRUCTURE

Abstract: A laminate structure having a first chemically strengthened glass layer, a second chemically strengthened glass layer, and a polymer interlayer structure intermediate the first and second glass layers. The polymer interlayer structure can include a first polymeric layer adjacent to the first glass layer, a second polymeric layer adjacent to the second glass layer, and a polymeric rigid core intermediate the first and second polymeric layers.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/06 B32B27/18 B32B27/28 B32B27/36 B32B33/00 B32B37/18 C03B27/012 C03C21/00 C03C27/12 C08G77/448 C08G77/455 E06B3/66 (Advanced/Invention)

CPC: B32B17/10091 B32B37/18 B32B2383/00 B32B2369/00

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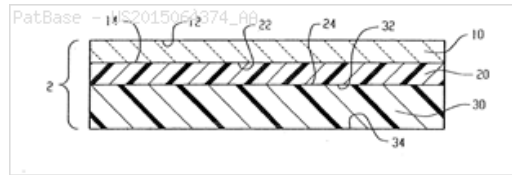
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B32B2307/50 C08G77/448 C08G77/455

US: 156/60 428/203 428/210 428/213 428/215 428/34 428/412 428/446 428/447

**Family:**

Publication number	Publication date	Application number	Application date
■ CN105682921 A	20160615	CN201480059358	20140828
■ EP3038826 A2	20160706	EP20140762186	20140828
■ IN201617009730 A	20160729	IN201617009730	20160321
■ JP2016538227 T2	20161208	JP20160537843T	20140828
■ KR20160047566 A	20160502	KR20167008221	20140828
■ TW201509650 A	20150316	TW20140129988	20140829
■ TWI634000 B	20180901	TW20140129988	20140829
■ US2015064374 AA	20150305	US20140471830	20140828
■ WO15031590 A2	20150305	WO2014US53115	20140828
■ WO15031590 A3	20150716	WO2014US53115	20140828

Priority:

US20130871928P 20130830 US20140471830 20140828 WO2014US53115 20140828

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): JAIN ANURAG ; LAURIN MICHAEL M ; MAAS CHRISTIANUS JOHANNES JAC ; MAAS CHRISTIANUS JOHANNES JACOBUS ; MCDONALD MICHAEL AARON ; MOORE MICHAEL JOHN ; WOOD CHARLIE W

Agent(s): SCHEUERMANN ERIK; HARDEE RYAN T ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATED GLAZING HAVING AN ELECTRICALLY CONDUCTIVE LAYER WITH AN ABLATION LINE, THE EDGES OF WHICH ARE FREE OF BEADS AND GENTLY SLOPED

Abstract: The invention relates to - laminated glazing comprising one or two sheets between 0.5 and 12 mm thick, and one or more structural sheets between 3 and 20 mm thick, wherein at least the face of at least one of the sheets that are 0.5 to 12 mm thick, oriented toward the structural sheet(s), and/or at least one face of the structural sheet(s) comprises an electrically conductive layer which is between 2 and 1600 nm thick, except over at least one ablation line, the edges of said line having no beads, and the average slope of said edges being at most equal to 5 percent; - a method for producing the glazing; - the application thereof as de-icing/de-misting glazing.

Classifications:

International (IPC 8-9): B23K26/00 B32B17/06 C03C17/06 C03C17/23 C03C23/00 C03C27/10 H05B3/86 (Advanced/Invention)
CPC: C03C27/10 C03C17/06 C03C17/23 C03C2218/328 H05B2203/013 B23K26/0624 B23K26/362 B23K26/402 B23K2103/08 B23K2103/172 B23K2103/54 B32B17/10018 B32B17/10137 B32B17/10183 B32B17/10211 B32B17/1022 B32B17/10761 B32B17/1077 B32B17/10788 B32B2333/12 B32B2367/00 B32B2369/00

PatBase - WO18109364_A1

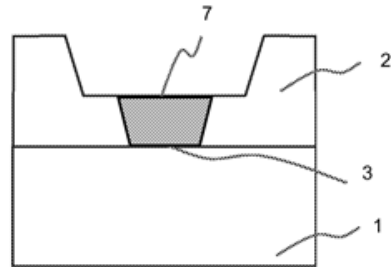


FIG 6

Family:

Publication number	Publication date	Application number	Application date
FR3059939 A1	20180615	FR20160062422	20161214
WO18109364 A1	20180621	WO2017FR53522	20171212

Priority:

FR20160062422 20161214

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): LEGOIS VINCENT ; RACHET VINCENT ; TONDU THOMAS

Inventor(s): VINCENT LEGOIS ; VINCENT RACHET ; THOMAS TONDU

Agent(s): SAINT GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LIGHTWEIGHT WINDOW WITH HEATING CIRCUIT AND ANTI-STATIC CIRCUIT AND A METHOD FOR ITS PREPARATION

Abstract: A transparent plastic window containing embedded therein a novel static electricity dissipating circuit (hereinafter referred to as an anti-static circuit), which may also contain a heating circuit insulated therefrom, and a method of producing such windows.

Classifications:

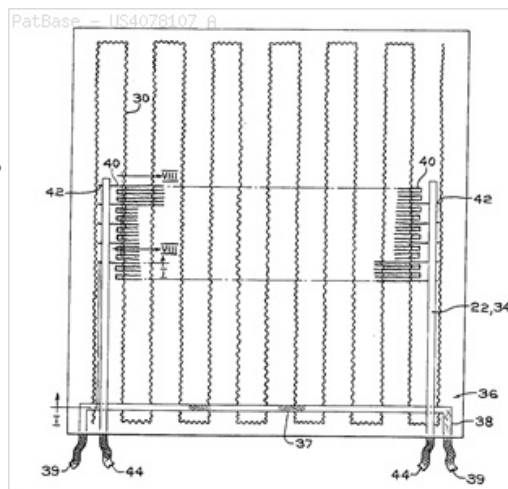
International (ipc 8-9): B32B17/10 B60S1/02 B64C1/14 B64D15/12 H05B3/20 H05B3/28 H05B3/84 H05B3/86 H05F3/02 (Advanced/Invention); B32B17/06 B60S1/02 B64C1/00 H05B3/20 H05B3/84 H05F3/02 (Core/Invention)

International (ipc 1-7): B29D3/00 B32B17/04 B32B17/10 B32B27/30 B32B27/40 B32B31/04 B60J1/00 B60J1/02 B60S1/02 B64C1/14 B64D15/12 E06B7/12 H05B3/18 H05B3/26 H05B3/28 H05B3/34 H05B3/36 H05F3/02

CPC: Y10S428/922 Y10T428/294 Y10T428/2951 B32B17/10761 B32B17/10018 B32B17/10376 B32B17/1077 B32B17/10853 B32B2333/12 B64C1/1484 H05B3/86 H05B2203/014 H05F3/02 Y10T428/31507 Y10T428/31573 Y10T428/31601 Y10T428/31699 B32B17/10385 B32B27/08 B32B27/306 B32B27/308 B32B27/365 B32B27/40 B32B2329/06 B32B2369/00 B32B2375/00

European: B32B17/10C2 B32B17/10E32 B32B17/10G28 B32B17/10G30 B32B17/10L10B2B2 B64C1/14C2 H05B3/86 H05F3/02 L32B333/12 T05B203/014

US: 156/166 156/274.2 156/303.1 156/99 219/203 219/544 244/134D 428/379 428/38 428/385 428/412 428/424.2 428/425.6 428/463 428/922



Family:

Publication number	Publication date	Application number	Application date
BR7703969 A	19780328	BR19770003969	19770620
CA1098812 A1	19810407	CA19770276736	19770422
DE2728387 A1	19771229	DE19772728387	19770624
DE2728387 C2	19870226	DE19772728387	19770624
FR2356510 A1	19780127	FR19770016985	19770603
FR2356510 B1	19830318	FR19770016985	19770603
IL52255 A0	19780131	IL19770052255	19770606
IL52255 A1	19811231	IL19770052255	19770606
IT1083291 A	19850521	IT19770068229	19770530
JP1304114 C3	19860228	JP19770070416	19770614
JP53002737 A2	19780111	JP19770070416	19770614
JP60032318 B4	19850727	JP19770070416	19770614
US4078107 A	19780307	US19760700239	19760628
US4128448 A	19781205	US19770861466	19771216

Priority:

US19760700239 19760628 CA19770276736 19770422 IL19770052255 19770606

Probable Assignee: PPG IND INC

Assignee(s): (std): PPG IND INC ; PPG INDUSTRIES INC

Assignee(s): PPG INDUSTRIES INC PITTSBURGH PA US ; PPG INDUSTRIES ; BITTERICE MICHAEL G ; KESLAR LEROY D ; PPG IND

Inventor(s): (std): KESLAR LEROY DAVID ; KESLAR LEROY D ; KESLAR L ; BITTERICE MICHAEL GEORGE ; BITTERICE MICHAEL G ; BITTERICE M ; MAIKURU JIYOJJI BITSUTAARAI SU ; REROI DEBITSUDO KESURAA

Inventor(s): MAIKURU JOOJI BITSUTAARAI SU ; BITTERICE MICHAEL GEORGE NEW KENSINGTON PA US ; DAVID KESLAR LEROY ; GEORGE BITTERICE MICHAEL ; KESLAR LEROY DAVID NATRONA HEIGHTS PA US ; KESLAR LEROY DAVID NATRONA HEIGHTS PA ; BITTERICE MICHAEL GEORGE NEW KENSINGTON PA

Agent(s): GOWLING LAFLEUR HENDERSON LLP; REINHOLD COHN AND PARTNERS

Title: Method of forming a curved, shatterproof glass laminate

Abstract: A method of making a curved, shatterproof glass laminate for an automotive or other type transportation vehicle window or sun roof, which comprises at least one heat tempered or heat strengthened glass layer, which may be a low E glass type, at least one internal combination elastic shock absorbing-adhesive plastic layer of, for example, polyvinyl butyral material, and at least one antilacerative plastic layer of, for example, polyester or polycarbonate material, and/or a polyester material having a scratch-resistant or self-healing coating. The laminate may be formed from a laminate layup by engaging the antilacerative layer with a mold member and subjecting the resultant assembly to vacuum, heat and pressure in an autoclave. The resultant laminate may have a thickness so as to be readily usable for replacement or new manufacture in a standard existing frame or holder. The mold member is formed of a relatively thin hard plastic, such as a polyester or a polycarbonate, a relatively thin metal, such as stainless steel, or be of a normally flat planar elastic, flexible resin-impregnated fiber glass construction which does not require premolding. When two glass layers are used, they may be bonded together by a liquid adhesive to compensate for curved shape variations in the layers.

Classifications:

International (IPC 8-9): B32B17/10 C03B17/06

C03C27/12 (Advanced/Invention);

C03C27/12 (Advanced/Non-invention);

B32B17/06 C03B17/00 C03C27/12 (Core/Invention);

B32B C03B C03C (Subclass/Invention)

International (IPC 1-7): B30B15/02 B32B B32B17/00 B32B17/10 B32B31/00 B32B31/12 C03B C03B17/06 C03C C03C27/10 C03C27/12

CPC: B32B17/10018 B32B17/10064 B32B17/10174 B32B17/1055

B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10889

B32B17/10908 B32B37/1018 B32B38/1866 B32B2307/412 B32B2315/08 B32B2329/00 B32B2331/04 B32B2333/04 B32B2367/00

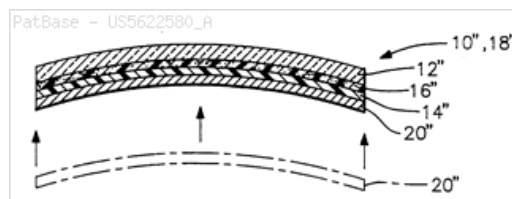
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European: B32B17/10C2 B32B17/10C6 B32B17/10E10 B32B17/10G B32B17/10G24 B32B17/10G28 B32B17/10G30

B32B17/10L14 B32B17/10L16B B32B31/00A5B B32B31/00C6 B32B37/10B B32B38/18D L32B307/412 L32B315/08 L32B329/00

L32B331/04 L32B333/04 L32B367/00 L32B369/00 L32B375/00 L32B605/08

US: 100/295 156/104 156/106 156/285 156/295 156/580



Family:

Publication number	Publication date	Application number	Application date
AU199459591 A1	19940815	AU19940059591	19931222
BRPI9307804 A	19951114	BR1993PI07804	19931222
CO4370766 A1	19961007	CO19930424690	19931229
DE69330005 D1	20010412	DE19936030005	19931222
DE69330005 T2	20010621	DE19936030005T	19931222
ECSP931014 A	19940916	EC1993SP01014	19931222
EP0676996 A1	19951018	EP19940905501	19931222
EP0676996 A4	19960501	EP19940905501	19931222
EP0676996 B1	20010307	EP19940905501	19931222
EP0676996 B8	20011114	EP19940905501	19931222
IL108237 A0	19940412	IL19930108237	19931230
IL108237 A1	19990312	IL19930108237	19931230
MX9400130 A1	19940729	MX19940000130	19940103
US5622580 A	19970422	US19950390863	19950217
WO9415783 A1	19940721	WO1993US12527	19931222
ZA9309794 A	19940815	ZA19930009794	19931230

Priority:

US19920999525 19921230 US19930170740 19931221 US19930999525 19931221
 WO1993US12527 19931222 US19950390863 19950217

Probable Assignee: GLASS TECHNOLOGY INVESTMENT LTD

Assignee(s): (std): IDEA INC ; MANNHEIM JOSE R ; MANNHEIM JOSE RICARDO ; MANNHEIM RUBENZIK JOSE RICARDO

Assignee(s): JOSE RICARDO MANNHEIM RUBENZIK ; IDEA INC WASHINGTON ; JOSE R MANNHEIM ; JOSE RICARDO MANNHEIM ; GLASS TECHNOLOGY INVESTMENT LTD

Inventor(s): (std): IDEA INC ; INC IDEA ; JOSE R MANNHEIM ; MANNHEIM JOSE R ; MANNHEIM R ; MANNHEIM RUBENZIK JOSE RICARDO ; MANNHEIM JOSE RICARDO

Inventor(s): JOSE RICARDO MANNHEIM ; JOSE RICARDO MANNHEIM RUBENZIK

Agent(s): XIMENA CASTELLANOS ABONDANO; REINHOLD COHN AND PARTNERS

Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA VN

Title: GLASS LAMINATES FOR THREAT RESISTANT WINDOW SYSTEMS

Abstract: This invention comprises a transparent laminate having at least one layer of glass and having self-adhered directly to the layer of glass a thermoplastic polymer layer wherein the laminate is capable of sustaining repeated or prolonged stress after the breakage of the glass layer while maintaining the structural integrity of the laminate.

Classifications:

International (IPC 8-9): B29C59/02 B29C59/04 B32B17/06 B32B17/10 B32B3/00 B32B3/10 C03C27/12 C08J5/18 G11B5/64 (Advanced/Invention); B29C59/02 B29C59/04 B32B17/10 (Advanced/Non-invention); B29C59/02 B32B17/06 B32B3/00 B32B3/10 C03C27/12 C08J5/18 G11B5/64 (Core/Invention);

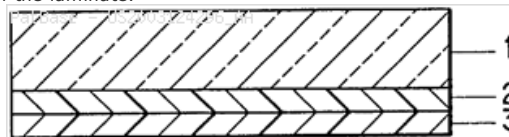
B29C59/02 B32B17/06 (Core/Non-invention)

International (IPC 1-7): B32B17/10

CPC: Y10T428/24355 Y10T428/24479 Y10T428/24612 Y10T428/24702 B32B17/10018 Y10T428/166 Y10T428/252 Y10T428/315 B32B17/1077 B32B17/10788 B32B17/10862 B29C59/022 B29C59/04 B29C2059/023 B32B17/10036 B32B17/10577 B32B17/10743 B32B17/10761 B32B17/10981 Y10T428/31645 Y10T428/31649 Y10T428/249928 Y10T428/249969 Y10T428/31525

European: B29C59/02C B32B17/10C2 B32B17/10C4 B32B17/10G24 B32B17/10G28 B32B17/10G2D B32B17/10G30 B32B17/10G36 B32B17/10L10B4 B32B17/10L22 L29C59/02C1 L29C59/04

US: 156/99 156/99S 428/141 428/141P 428/156 428/156S 428/172 428/172P 428/183 428/293.4 428/293.400S 428/312.6 428/312.600S 428/325 428/325S 428/41 428/410 428/410S 428/417 428/417S 428/426 428/426S 428/441 428/442 428/49 428/49P



Family:

Publication number	Publication date	Application number	Application date
AU2006320431 AA	20070607	AU20060320431	20061201
AU2006320431 BB	20101216	AU20060320431	20061201
AU2006320431 CA	20111103	AU20060320431	20061201
CN101321619 A	20081210	CN200680045241	20061201
CN101321619 B	20130710	CN200680045241	20061201
DE602006044728 D1	20150416	DE200660044728T	20061201
EP1965977 A1	20080910	EP20060844724	20061201
EP1965977 B1	20150304	EP20060844724	20061201
JP2009518467 T2	20090507	JP20080543501T	20061201
US2003124296 AA	20030703	US20020267257	20021009
US2006141212 AA	20060629	US20050292721	20051202
US2008286530 AA	20081120	US20070725622	20070320
US7351468 BB	20080401	US20050292721	20051202
US7678441 BB	20100316	US20070725622	20070320
WO07064922 A1	20070607	WO2006US46056	20061201

Priority:

US20000674317 20001026 US20020267257 20021009 US20050292721 20051202
EP20060844724 20061201 WO2006US46056 20061201 US20070725622 20070320

Probable Assignee: E I DU PONT DE NEMOURS AND CO

Assignee(s): (std): ANDERSON JERREL C ; ANDERSON JERREL CHARLES ; DU PONT ; SMITH CHARLES ANTHONY ; EIDU PONT DE NEMOURS AND CO ; SMITH CHARLES A

Assignee(s): EI DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS CO ; EI DU PONT DE NEMOURS AND CO WILMINGTON ; E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY

Inventor(s): (std): SMITH CHARLES ANTHONY ; CHARLES ANDERSON JERREL ; ANTHONY SMITH CHARLES ; ANDERSON JERREL CHARLES ; ANDERSON JERREL C ; SMITH CHARLES A

Inventor(s): JERREL CHARLES ANDERSON ; CHARLES ANTHONY SMITH ; SMITH CHARLES ; ANDERSON JERREL ; SMITH CHARLES ANTHONY VIENNA ; ANDERSON JERREL CHARLES VIENNA

Agent(s): HOULIHAN²; HOULIHAN² PTY LTD; HOULIHAN²; MARKS AND CLERK LUXEMBOURG LLP; HEINEMANN MONICA; KUMAKURA YOSHIO; OGAWA NOBUO; HAKODA ATSUSHI; HIRAYAMA KOJI; ASAI KENJI; E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; DOBSON KEVIN S; KULLER MARK D; MARK D; KEVIN S; KEVIN; TONG; MARK

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATED PANEL

Abstract: A laminated panel composed of a plastic sheet and a glass sheet bonded to each other through an adhesive layer having a thickness of not more than about 200 microns and composed of a thermoplastic resin having a softening point of less than about 100 DEG C., containing substantially no plasticizer and being plastic at room temperature, said plastic sheet being composed of a resin having a higher softening point than said thermoplastic resin.

Classifications:

International (IPC 8-9): B29C63/00 B32B15/04 B32B15/08 B32B17/10 B32B37/00 (Advanced/Invention); B29C63/00 B32B15/04 B32B15/08 B32B17/06 B32B37/00 (Core/Invention)

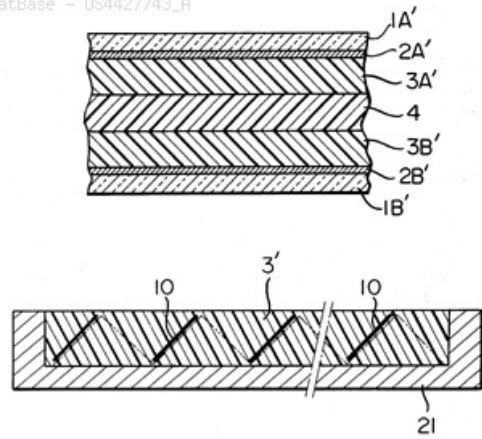
International (IPC 1-7): B32B15/08 B32B17/06 B32B17/10 B32B27/28 B32B27/36 B32B31/04 B32B7/02 B32B7/12 B60J1/00 E04B1/80

CPC: Y10T428/31507 Y10T428/3158 Y10T428/31587 Y10T428/31645 Y10T428/31649 B32B27/08 B32B7/12 B32B27/283 B32B27/306 B32B27/40 B32B2307/412 B32B2307/51 B32B2605/00 B32B2607/00 B32B17/10 B32B17/10018 B32B17/10036 B32B17/10174 B32B17/10577 B32B17/10761 B32B17/1077 B32B17/10788 B32B2605/08 B32B5/024 B32B5/026 B32B27/302 B32B27/304 B32B27/308 B32B27/365 B32B2250/40 B32B2260/021 B32B2260/04 B32B2305/186 B32B2305/188 B32B2307/416 B32B2307/56 B32B2311/00 B32B2325/00 B32B2327/06 B32B2329/06 B32B2331/04 B32B2333/00 B32B2369/00 B32B2375/00 B32B17/10798

European: B32B17/10 B32B17/10C2 B32B17/10C4 B32B17/10E10 B32B17/10G28 B32B17/10G2D B32B17/10G30 B32B17/10G36 L32B605/08

US: 156/104 428/412 428/424.6 428/424.8 428/441 428/442

PatBase - US4427743_A

**Family:**

Publication number	Publication date	Application number	Application date
DE3022253 A1	19801218	DE19803022253	19800613
DE3022253 C2	19910926	DE19803022253	19800613
FR2458390 A1	19810102	FR19800013163	19800613
FR2458390 B1	19841116	FR19800013163	19800613
GB2051675 A1	19810121	GB19800019387	19800613
GB2051675 B2	19830602	GB19800019387	19800613
JP1146232 C3	19830512	JP19790074194	19790613
JP1175303 C3	19831114	JP19790074195	19790613
JP55166243 A2	19801225	JP19790074194	19790613
JP55166244 A2	19801225	JP19790074195	19790613
JP56140429 U1	19811023	JP19800039805U	19800326
JP56143040 U1	19811028	JP19800040489U	19800327
JP57039227 B4	19820820	JP19790074194	19790613
JP58009757 B4	19830222	JP19790074195	19790613
US4427743 A	19840124	US19820379015	19820517

Priority:

JP19790074194 19790613 JP19790074195 19790613 JP19800034843 19800321
JP19800039805U 19800326 JP19800404898 19800327 JP19800040489U 19800327
US19800158137 19800610

Probable Assignee: NIPPON SHEET GLASS CO LTD

Assignee(s): (std): NIPPON SHEET GLASS CO LTD ; NIPPON SHEET GLASS CO LTD OSAKA JP

Assignee(s): NIPPON SHEET GLASS CO

Inventor(s): (std): KATSUKI KAZUO ; KATSUKI KAZUO TAKARAZUKA HYOGO JP ; MIWA TAKAO ; OHNISHI SHUNJI ; OHNISHI SHUNJI NISHINOMIYA HYOGO JP ; OONISHI SHIYUNJI ; OONISHI TOSHIJI ; SHIBAOKA KAZUO ; SHIBAOKA KAZUO ; SHIBAOKA KAZUO ITAMI HYOGO JP

Title: WINDOW ARRANGEMENT FOR A VEHICLE AND METHOD FOR THE PRODUCTION THEREOF

Abstract: An arrangement for closing an opening of a vehicle and a corresponding manufacturing method, in which a shattering protection element (30, 30 A, 30 B) is fixed to a pane or to a functional element (60) fixed at the pane. The pane and the shattering protection element are connected via a permanently elastic adhesive connection (12) to the vehicle body or to a holding element (18) connected to the vehicle body.

Classifications:

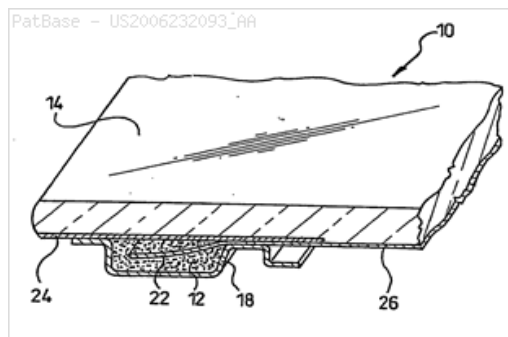
International (IPC 8-9): B32B17/06 B32B17/10 B60J1/00 B60J1/02 B60J10/00 B60J10/02 B60J7/00 H01L31/042 (Advanced/Invention); B32B17/06 B60J1/00 B60J10/02 H01L31/042 (Advanced/Non-invention); B32B17/06 B60J1/00 B60J1/02 B60J10/00 B60J10/02 B60J7/00 H01L31/042 (Core/Invention)

International (IPC 1-7): B32B17/06 B60J1/00 B60J10/02 B60J7/00 H01L31/042

CPC: B60J10/18 B60J10/30 B60J10/70 B32B17/10761 B32B17/10018 B32B17/10293 B32B17/10366 B32B17/1077 B32B17/10788 B32B2367/00 B32B2369/00

European: B32B17/10C2 B32B17/10E16 B32B17/10E30 B32B17/10G28 B32B17/10G30 B32B17/10G36 B60J10/00C4 B60J10/00G B60J10/02 L32B367/00 L32B369/00

US: 296/211 296/216.09 296/96.21 296/96.210P



Family:

Publication number	Publication date	Application number	Application date
AT511442 E	20110615	AT20040711981T	20040218
CN1750928 A	20060322	CN200480004584	20040218
CN1750928 B	20120404	CN200480004584	20040218
DE10306957 A1	20040909	DE20031006957	20030219
DE20320917 U1	20050519	DE20032020917U	20030219
DE502004012565 D1	20110714	DE200450012565T	20040218
EP1594692 A1	20051116	EP20040711981	20040218
EP1594692 B1	20110601	EP20040711981	20040218
JP2006517876 T2	20060803	JP20060501504T	20040218
JP4771935 B2	20110914	JP20060501504T	20040218
KR100910482 B1	20090804	KR20057015092	20040218
KR20050105472 A	20051104	KR20057015092	20040218
MXPA05008882 A1	20051005	MX2005PA08882	20040218
US2006232093 AA	20061019	US20040546423	20040218
US7641274 BB	20100105	US20040546423	20040218
WO04073976 A1	20040902	WO2004DE000302	20040218
WO04073976 C1	20050512	WO2004DE000302	20040218

Priority:

DE20031006957 20030219 DE20032020917U 20030219 EP20040711981 20040218
WO2004DE000302 20040218 WO2004DE000302 20040218 WO2004DE000302 20050817

Probable Assignee: WEBASTO AG

Assignee(s): (std): BOEHM HUBERT ; ERBECK GERIT ; PAETZ WERNER ; TESCHNER HELMUT ; VILSMAYER SWEN ; WEBASTO AG ; WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO VEHICLE SYS INT GMBH ; WEBASTO FAHRZEUGTECHNIK AG

Assignee(s): WEBASTO VEHICLE SYSTEMS INT GMBH ; WEBASTO VEHICLE SYSTEMS INTERNATIONAL GMBH ; WEBASTO SE

Inventor(s): (std): BOEHM HUBERT ; GERIT ERBECK ; HELMUT TESCHNER ; HUBERT BOEHM ; SWEN VILSMAYER ; TESCHNER HELMUT ; WERNER PAETZ ; VILSMAYER SWEN ; PAETZ WERNER ; ERBECK GERIT ; SWEN BOEHM HUBERT ERBECK GERIT

Inventor(s): BOEHM HUBERT ERBECK GERIT PAETZ WERNER... ; BOEHM HUBERT ERBECK GERIT PAETZ WERNER TESCHNER HELMUT VILSMAYER SWEN ; BOEHM HUBERT ERBECK GERIT PAETZ WERNER TESCHNER HE

Agent(s): SCHWAN SCHWAN SCHORER; ROBERTS MLOTKOWSKI AND HOBBS; DAVID S; ROBERTS MLOTKOWSKI SAFRAN AND COLE PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: VERFAHREN UND VORRICHTUNG ZUM HERSTELLEN EINER SCHEIBENANORDNUNG FUER EIN FAHRZEUG, VERWENDUNG DER HERGESTELLTEN SCHEIBENANORDNUNG

Abstract: The production of a pane arrangement comprises placing a glass pane (40) and a plastic film (42) between the inner surfaces (16, 18) of two workpiece halves (12, 14) to form a film composite, closing the halves to form an air-tight seal between them, evacuating the space between the halves, heat treating the film composite to laminate the plastic film to the pane, and opening the halves to remove the laminated pane. An independent claim is also included for a device for carrying out the above process.

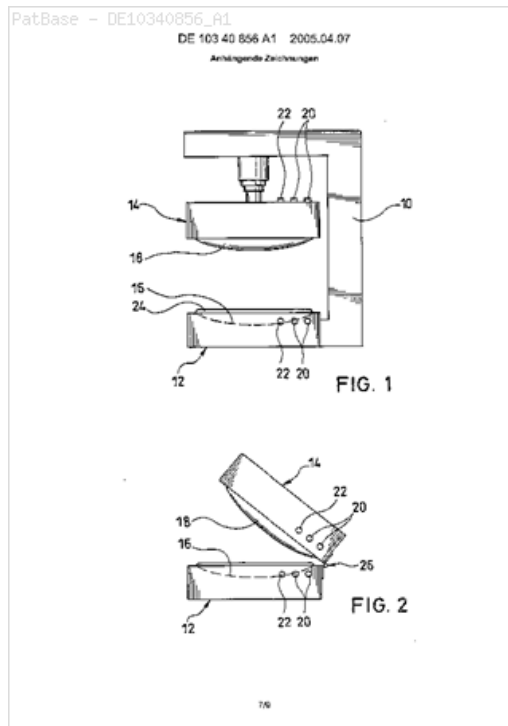
Classifications:

International (IPC 8-9): B29C63/02 B29C63/22 B32B17/10 B32B27/36 B32B37/00 B60J1/00 C03C27/12 (Advanced/Invention); B29C63/00 B32B38/18 (Advanced/Non-invention); B29C63/02 B32B17/06 B32B27/36 (Core/Invention); B29C63/00 B32B38/18 (Core/Non-invention)

International (IPC 1-7): B29C63/22 B32B17/10 B32B31/20 B60J1/00 C03C27/12

CPC: B32B17/10495 B29C63/0047 B29C63/0065 B29C63/0073 B29C63/02 B29C2043/3647 B29C2791/006 B32B7/12 B32B17/10018 B32B17/10376 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10889 B32B17/10935 B32B27/36 B32B27/365 B32B37/10 B32B38/1866 B32B2309/68 B32B2367/00 B32B2369/00 B32B2605/08

European: B29C63/02 B32B17/10C2 B32B17/10E32 B32B17/10E40D6 B32B17/10G28 B32B17/10G30 B32B17/10G36 B32B17/10L14 B32B17/10L16F B32B27/36 B32B31/00A5 B32B37/10 L29C43/36D2 L29C63/00E L29C63/00T L29C63/00U L29C791/00E4 L32B309/68 L32B38/18D



Family:

Publication number	Publication date	Application number	Application date
DE10340856 A1	20050407	DE20031040856	20030904
DE10340856 B4	20091112	DE20031040856	20030904

Priority:

DE20031040856 20030904

Probable Assignee: WEBASTO AG FAHRZEUGTECHNIK

Assignee(s): (std): WEBASTO AG ; WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO FAHRZEUGTECHNIK AG

Inventor(s): (std): BOEHM HUBERT ; ERBECK GERIT ; PAETZ WERNER

Title: HOT LAMINATION METHOD FOR PRODUCING A GLASS-PLASTIC LAMINATE

Abstract: The invention relates to a method for producing a glass-plastic laminate with a plastic layer, a glass layer and an adhesive layer arranged therebetween. According to the invention, in order to produce a glass-plastic laminate that is planar to the greatest extent possible using a hot lamination method, the glass-plastic laminate is shock-cooled before the adhesive layer is hardened.

Classifications:

International (IPC 8-9): B32B17/10 B32B37/00 B32B37/08
B32B37/10 (Advanced/Invention)

CPC: B32B17/10018 B32B17/10761 B32B17/1077 B32B17/10788
B32B17/1099 B32B37/085 B32B37/12 B32B2309/02 B32B2315/08
B32B2398/00 B32B17/10972 B32B2369/00

PatBase - WO13117689_A1

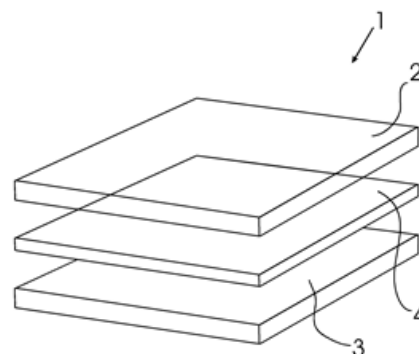


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
DE102012101093 B3	20130404	DE201210101093	20120210
DE102012101093 B8	20130627	DE201210101093	20120210
WO13117689 A1	20130815	WO2013EP52528	20130208

Priority:

DE201210101093 20120210

Probable Assignee: AC VERWALTUNGS AND KONZEPT GMBH

Assignee(s): (std): AC VERWALTUNGS AND KONZEPT GMBH ; FOTOVERBUNDGLAS MARL GMBH

Inventor(s): (std): MUSCHIOLE MICHAEL

Agent(s): KALKOFF AND PARTNER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: BULLET-RESISTANT TRANSPARENT COMPOSITE PANE

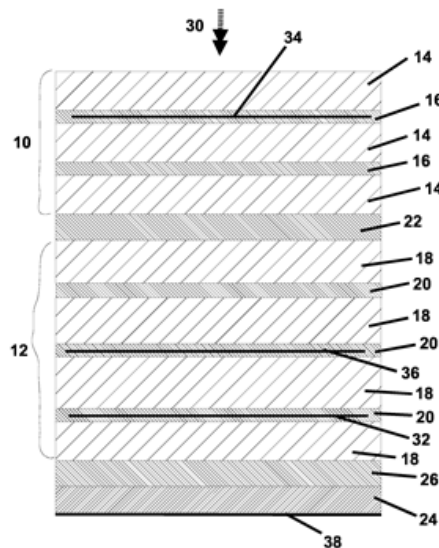
Abstract: A bullet-resistant transparent composite pane has a first block (10) which faces the threat side of the composite pane and has, in the direction of thickness, a plurality of transparent glass panels (14) which are connected to one another; and a second block (12) which faces away from the threat side of the composite pane and has, in the direction of thickness, a plurality of transparent plastic panels (18) which are connected to one another. The first block (10) and the second block (12) are arranged behind one another in the direction of thickness and are connected to one another via an elastic compensating layer (22) for compensating for the different thermal expansions of the first and the second block (10, 12) in the case of temperature changes. A composite pane which is composed in this way has, with the same protective effect, a considerably smaller thickness than a pure plastic composite pane and a considerably lower mass per unit area than a pure bulletproof glass pane.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/08 B32B27/36 C03C27/12 F41H5/04 F41H5/26 (Advanced/Invention)

CPC: B32B17/10761 B32B17/10743 B32B17/10045 B32B17/1077 B32B27/08 B32B2333/12 B32B2369/00 F41H5/0407

PatBase - WO13064491_A1

**Family:**

Publication number	Publication date	Application number	Application date
DE102011117340 A1	20130502	DE201110117340	20111031
DE102011117340 B4	20170511	DE201110117340	20111031
WO13064491 A1	20130510	WO2012EP71470	20121030

Priority:

DE201110117340 20111031

Probable Assignee: IABG INDUSTRIEANLAGEN BETR SGMBH**Assignee(s):** (std): ESW GMBH ; HAMPEL JAN ; IABG INDUSTRIEANLAGEN BETR SGMBH ; IABG INDUSTRIEANLAGEN BETRIEBSGESELLSCHAFT MBH ; JENOPTIK ADVANCED SYSTEMS GMBH**Inventor(s):** (std): HAMPEL JAN ; KRUEGER THOMAS ; SCHAEFER ROGER**Agent(s):** WALLINGER RICKER SCHLOTTER TOSTMANN

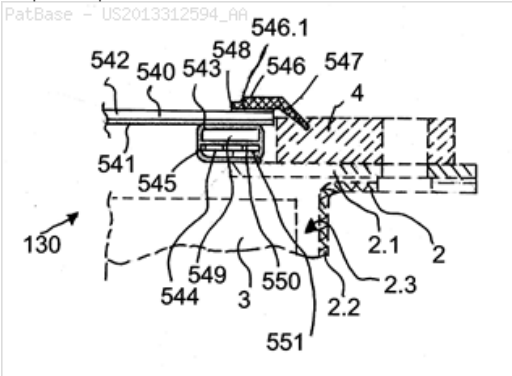
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PANE CONSTRUCTION AND CORRESPONDING BULLET PROOF WINDOW

Abstract: The present invention relates to a pane construction or screen for covering and protecting at least a part of the outside of a ballistic block of a bullet proof window. The ballistic window for use in a motor vehicle may comprise the ballistic block having transparent panes and layers made of glass, ceramic, or plastic which are arranged in a layered manner in a laminate, and it has an outside surface which is covered completely or at least in part by the transparent pane construction.

Classifications:

International (IPC 8-9): B32B17/10 B60J1/00 B60J11/00 F41H5/04 F41H5/26 F41H7/00 (Advanced/Invention)
CPC: B32B17/10018 B32B17/10036 B32B17/10119 B32B17/10761 B32B17/1077 F41H5/263 B32B17/10 B32B2369/00 B32B2333/12 F41H7/00 B60J11/00 F41H5/0407 F41H5/0414 F41H5/0442
US: 1/1 89/36.02 89/36.08



Family:

Publication number	Publication date	Application number	Application date
BR112014029068 A2	20170627	BR20141129068	20130521
CO7151519 A2	20141229	CO20140279279	20141219
DE602012005894 D1	20150430	DE201260005894T	20120521
EP2667143 A1	20131127	EP20120003952	20120521
EP2667143 B1	20150318	EP20120003952	20120521
ITMI20130825 A1	20131122	IT2013MI00825	20130521
US2013312594 AA	20131128	US20130897835	20130520
US9182197 BB	20151110	US20130897835	20130520
WO13174511 A1	20131128	WO2013EP01505	20130521

Priority:

EP20120003952 20120521 WO2013EP01505 20130521

Probable Assignee: ISOCLIMA SPA

Assignee(s): (std): ISOCLIMA SPA

Assignee(s): ISOCLIMA ESTE SPA ; ISOCLIMA S P A

Inventor(s): (std): ALBERTO BERTOLINI ; BERTOLINI ALBERTO

Agent(s): LUIS FELIPE CASTILLO GIBSON; MOTSCH AND SEITZ; SEITZ RALF HANS FRANK; HAUPTMAN HAM LLP; SEITZ RALF

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATED GLAZINGS VITRAGES FEUILLETES

Abstract: A laminated glazing comprises at least two glass layers, a fire resistant layer between said glass layers, and one or more layers of polymeric material; said layers of polymeric material comprising a reinforcing film incorporating polyhedral oligomeric silsesquioxane (POSS) nano-particles; or said layer being itself reinforced by polyhedral oligomeric silsesquioxane (POSS) nano-particles.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10

C09K21/02 (Advanced/Invention);

C08K5/549 (Advanced/Non-invention)

CPC: B32B17/10045 B32B17/10119 B32B17/10311 B32B17/10724

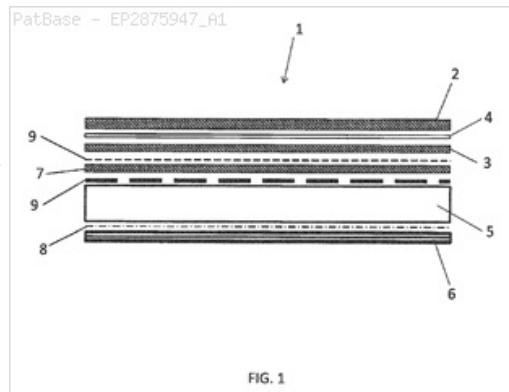
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B32B2375/00 C08K5/549 B32B17/10 B32B17/064 B32B17/068

B32B17/069 B32B17/10064 B32B17/10366 B32B17/10614 B32B17/10743

B32B17/10752 B32B17/10779 B32B2255/20 B32B2255/26 B32B2305/08

B32B2307/3065 C03C2217/00 C09K21/02



Family:

Publication number	Publication date	Application number	Application date
EP2875947 A1	20150527	EP20140194702	20141125
GB201320707 A0	20140108	GB20130020707	20131125
GB2520535 A1	20150527	GB20130020707	20131125

Priority:

GB20130020707 20131125

Probable Assignee: ESSEX SAFETY GLASS LTD

Assignee(s): (std): ESSEX SAFETY GLASS LTD

Inventor(s): (std): SADEGHI ESFAHLANI SHABNAM ; SINDEN SCOTT

Inventor(s): SCOTT SINDEN ; SHABNAM SADEGHI ESFAHLANI

Agent(s): IP21 LTD

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: MULTI-LAYER TRANSPARENT LIGHT-WEIGHT SAFETY GLAZINGS

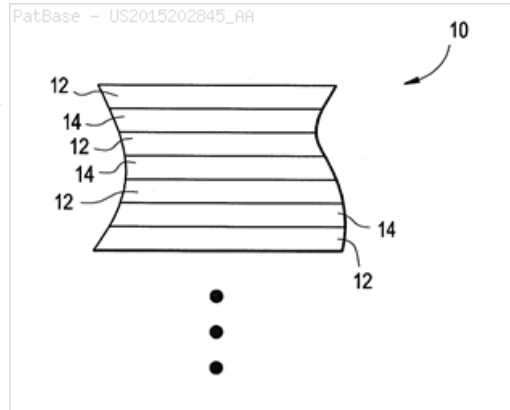
Abstract: A multi-layer glass structure is provided having n layers of annealed or chemically strengthened glass and n-1 layers of a polymer interlayer where n is a positive integer greater than 2. In another embodiment, a glass laminate structure is provided having a plurality of annealed or chemically strengthened glass sheets, one or more polymeric interlayers positioned between adjacent annealed or chemically strengthened glass sheets, and a thin annealed or chemically strengthened glass sheet on a first side of the glass laminate structure.

Classifications:

International (IPC 8-9): B32B17/04 B32B17/10 B32B37/12 B60J1/00 C03C27/12 F41H5/04 (Advanced/Invention)

CPC: B32B2369/00 F41H5/0407 B32B17/10045 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B2250/42 B32B2571/02 Y10T428/24967 Y10T428/31507 Y10T428/31573 Y10T428/31601 Y10T428/3163

US: 428/215 428/412 428/424.2 428/425.6 428/426 428/437

**Family:**

Publication number	Publication date	Application number	Application date
EP2879868 A1	20150610	EP20130826363	20130801
EP2879868 A4	20160413	EP20130826363	20130801
JP2015531700 T2	20151105	JP20150525596T	20130801
JP6070969 B2	20170201	JP20150525596T	20130801
US2015202845 AA	20150723	US20130418982	20130801
WO14022663 A1	20140206	WO2013US53219	20130801

Priority:

US20120679330P 20120803 US20130418982 20130801 WO2013US53219 20130801

Probable Assignee: CORNING INC

Assignee(s): (std): CHEREKDJIAN SARKO ; CORNING INC ; SORENSEN CHARLES MITCHEL

Inventor(s): (std): CHEREKDJIAN SARKO ; SORENSEN CHARLES MICHAEL JR ; SORENSEN CHARLES MITCHEL ; SORENSEN JR CHARLES MITCHEL

Agent(s): OLDROYD RICHARD DUNCAN; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MODULAR WALL PANELS AND PLANAR STRUCTURES

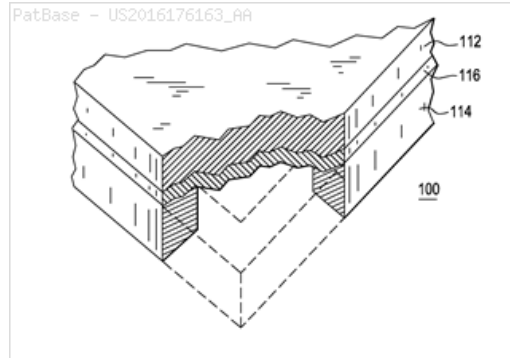
Abstract: A modular glass panel comprising a glass structure having at least one thin glass sheet having a thickness ranging from about 0.5 mm to about 2.0 mm, a backing frame positioned adjacent the glass structure and situated along the perimeter of the glass structure, and a polymer layer intermediate the glass structure and backing frame to adhere the glass structure together with the backing frame. The glass structure can further comprise the at least one thin glass sheet and a second glass sheet having a polymer interlayer therebetween. The backing frame generally has a geometric cross-section with a rounded interior edge adjacent the glass structure to prevent breakage of the structure upon loading or impact of an exterior surface of the structure.

Classifications:

International (IPC 8-9): B32B17/04 B32B17/06 B32B17/10 B66B11/02 C03C27/12 E04B2/72 E04B9/04 E04B9/32 E04F13/077 E04F13/15 F21V33/00 (Advanced/Invention); A47B96/20 (Advanced/Non-invention)

CPC: B32B17/10779 B32B17/10541 B32B17/10247 B32B17/10064 E04F13/077 E04B2/72 E04B9/045 E04B9/32 B32B2607/02 B32B2375/00 B32B2329/06 B32B2331/04 B32B2367/00 B32B17/064 B32B17/10018 B32B17/10137 B32B17/10761 B32B17/1077 B32B17/10788 A47B96/20 B32B17/10036 B32B17/10293 B32B17/10743

US: 428/38 428/67

**Family:**

Publication number	Publication date	Application number	Application date
EP3027407 A1	20160608	EP20140750099	20140723
JP2016533924 T2	20161104	JP20160531756T	20140723
US2016176163 AA	20160623	US20140907926	20140723
US10011094 BB	20180703	US20140907926	20140723
WO15017198 A1	20150205	WO2014US47724	20140723

Priority:

US20130860539P 20130731 US20140907926 20140723 WO2014US47724 20140723

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING INC

Inventor(s): (std): BROWN GORDON CHARLES ; CLEARY THOMAS MICHAEL ; GREGORSKI JOAN DEANNA

Agent(s): GREENE SIMON KENNETH; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLASS-RESIN LAMINATE AND METHOD FOR PRODUCING SAME

Abstract: A glass/resin laminate (A) including glass plates laminated on both sides of a polycarbonate layer through bonding layers made of a thermoplastic resin, each of the glass plates having a thickness of from 0.3 to 1 mm and having compressive stresses of at least 3 MPa on an entire surface thereof is provided. The glass/resin laminate (A) is obtainable by a process including a step (1) for disposing a bonding layer on one side of a polycarbonate film having a certain thickness, the bonding layer being made of a thermoplastic resin; a step (2) for stacking a glass plate on the bonding layer to prepare a laminate (B) with the polycarbonate film and the glass plate being laminated through the bonding layer; and a step (3) for preparing another similar laminate (B), placing both laminates (B) in a mold such that both polycarbonate films are confronted each other, and forming a polycarbonate layer between the confronted polycarbonate films.

Classifications:

International (IPC 8-9): B29C45/14 B32B17/10

C03C27/12 (Advanced/Invention);

B29C45/56 B29K669/00 B29K709/08 B29K75/00

B29L31/30 (Advanced/Non-invention)

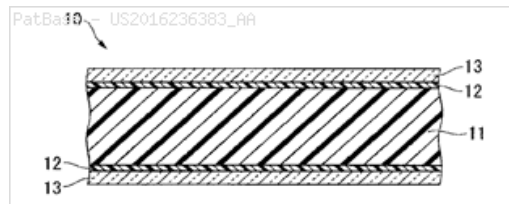
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B29L2031/3052 B29C45/14467 B32B17/10018 B32B17/10761

B32B17/1077 B32B17/10788 B32B2369/00 B32B2419/00 B32B17/10

US: 428/215



Family:

Publication number	Publication date	Application number	Application date
■ CN105829051 A	20160803	CN201480068532	20141209
■ CN105829051 B	20180807	CN201480068532	20141209
■ EP3085510 A1	20161026	EP20140871026	20141209
■ EP3085510 A4	20170726	EP20140871026	20141209
■ JP2015093352 A1	20170316	JP20150553491T	20141209
■ US2016236383 AA	20160818	US20160139599	20160427
■ US9999998 BB	20180619	US20160139599	20160427
■ WO15093352 A1	20150625	WO2014JP82586	20141209

Priority:

JP20130259588 20131216 WO2014JP82586 20141209

Probable Assignee: ASAHII GLASS CO LTD

Assignee(s): (std): ASAHII GLASS CO LTD

Assignee(s): N A ; AGC INC

Inventor(s): (std): MIYAZAKI SYO

Agent(s): MUELLER BORE AND PARTNER PATENTANWALTE PARTG MBB; OBLON MCCLELLAND MAIER AND NEUSTADT LLP; SENMYO KENJI ET AL

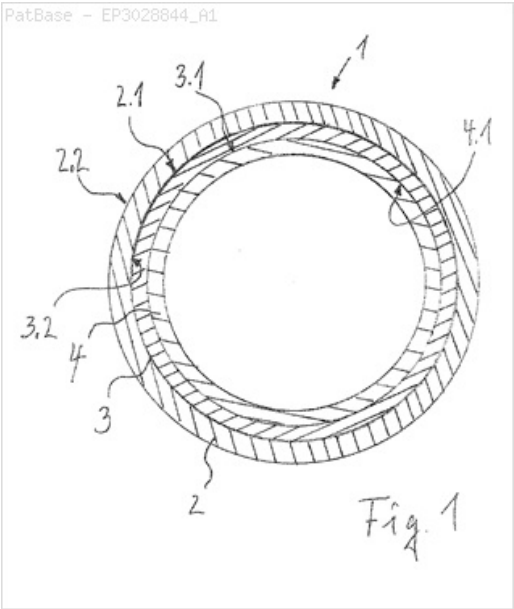
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COMPOSITE GLASS TUBE TUBE DE VERRE COM

Abstract: The present invention relates to a composite glass tube (1) and a corresponding manufacturing method which comprises a glass tube (2) and an anti-shatter layer construction provided on an inside surface of the glass tube (2) for restraining glass parts and splinters in case of breakage of the glass tube (2), wherein the anti-shatter layer construction comprises at least one supporting anti-shatter foil (4) or layer and at least one adhesive anti-shatter foil (3) or layer deposited or laminated on the inside surface (2.1) of the glass tube (2) wherein the supporting anti-shatter foil (4) or layer is arranged on an inside surface (3.1) of the adhesive anti-shatter foil (3) or layer.

Classifications:

International (IPC 8-9): B32B1/08 B32B17/10 E04C3/36 E04H12/02 F16L9/10 (Advanced/Invention)
CPC: B32B17/10761 B32B1/08 B32B17/10018 B32B17/10119 B32B17/1077 B32B17/10788 B32B17/10853 B32B2367/00 B32B2369/00 E04H12/02 E04C3/285 E04C3/36



Family:

Publication number	Publication date	Application number	Application date
EP3028844 A1	20160608	EP20140425150	20141202

Priority:

EP20140425150 20141202

Probable Assignee: ISOCLIMA SPA

Assignee(s): (std): ISOCLIMA SPA

Inventor(s): (std): BERTOLINI ALBERTO

Agent(s): SEITZ RALF HANS FRANK

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: ARMORED GLAZING MANUFACTURED FROM MASS-PRODUCED LAMINATED GLAZING CONSTITUENTS

Abstract: A process for manufacturing a light armored curved laminated glazing intended to be fitted in an opening of a transport vehicle suitable for the mass-production fitting of a curved laminated glazing containing two glass sheets, wherein use is made of at least three constituent curved glass sheets of such mass-produced curved laminated glazing containing two glass sheets, including both sheets from one and the same such mass-produced curved laminated glazing containing two glass sheets, which have been previously bent together.

Classifications:

International (IPC 8-9): B32B17/10 F41H5/04 F41H5/26 (Advanced/Invention)

CPC: B32B17/10009 B32B17/10761 B32B17/10788 B32B17/10743 B32B2367/00 B32B17/10036 B32B2571/02 B32B2309/105 F41H5/0407 B32B17/10045 B32B17/1077 B32B2250/04 B32B2369/00

Family:

Publication number	Publication date	Application number	Application date
BR112017010124 A2	20180130	BR20171110124	20151201
CN107003100 A	20170801	CN201580065683	20151201
CO20170005539 A2	20170818	CO20170005539	20170602
EP3227112 A1	20171011	EP20150817959	20151201
FR3029454 A1	20160610	FR20140061900	20141204
IN201717016067 A	20170929	IN201717016067	20170508
MX2017007029 A1	20170824	MX20170007029	20151201
US2017336175 AA	20171123	US20150532611	20151201
WO16087764 A1	20160609	WO2015FR53274	20151201

Priority:

FR20140061900 20141204 WO2015FR53274 20151201

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): BOUIGEON CHRISTIAN ; CHAUSSADE PIERRE ; CHRISTIAN BOUIGEON ; PIERRE CHAUSSADE

Agent(s): MARGARITA CASTELLANOS ABONDANO; SAINT GOBAIN RECHERCHE

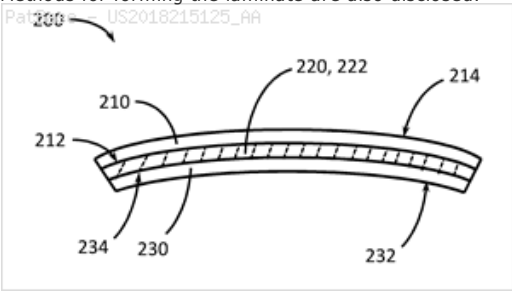
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Title: LIGHT-RESPONSIVE THIN GLASS LAMINATES

Abstract: Embodiments of this disclosure pertain to a laminate including a first substrate, an interlayer and a light responsive material disposed on the first substrate, and a second substrate disposed on the interlayer. The laminate may be complexly curved. The light responsive material may include any one or more of an electrochromic material, a photochromic material, a suspended particle material, a micro-blind material and a liquid crystal material. In one or more embodiments, the laminate comprises a display unit disposed between the first and second substrate. Methods for forming the laminate are also disclosed.

Classifications:

International (IPC 8-9): B32B17/10 (Advanced/Invention)
CPC: B32B17/10743 B32B17/10137 C03C21/002 B32B17/10752
B32B17/10935 B32B2329/06 B32B2331/04 B32B2369/00 B32B2375/00
B32B2457/202 B32B2457/204 B32B2457/206 B32B17/10495
B32B17/10036 B32B17/10119 B32B17/10486 B32B17/10504
B32B17/10513 B32B17/10532 B32B17/10761 B32B17/1077
B32B17/10788 B32B2457/20



Family:

Publication number	Publication date	Application number	Application date
■ CN107743443 A	20180227	CN201680032619	20160601
■ EP3302967 A1	20180411	EP20160729436	20160601
■ KR20180014753 A	20180209	KR20177037277	20160601
■ US2018215125 AA	20180802	US20160578385	20160601
■ WO16196531 A1	20161208	WO2016US35130	20160601

Priority:

US20150169755P 20150602 US20160578385 20160601 WO2016US35130 20160601

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): GAHAGAN KEVIN THOMAS

Agent(s): EPPING HERMANN FISCHER; PATEL PAYAL A

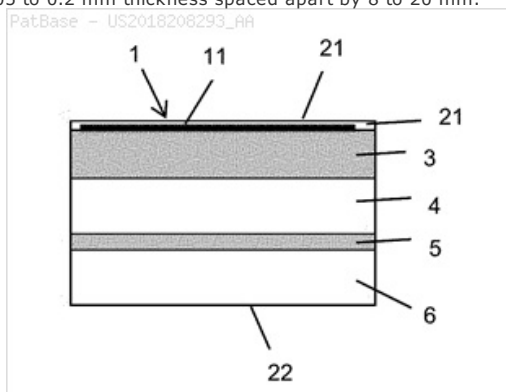
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HEATING GLAZING WITH THINNED OUTER SHEET OF GLASS AND HEATING LAYER WITH FLOW SEPARATION LINES

Abstract: A laminated glazing includes a first structural ply assembled with a first glass sheet of 0.5 to 1.5 mm thickness by way of a first adhesive interlayer, the first glass sheet forming a first exterior face of the laminated glazing, the face of the first glass sheet oriented toward the first adhesive interlayer bearing a first conductive heating layer of 2 Ångströms to 500 nm thickness, and the first conductive heating layer including flow-separating lines of 0.05 to 0.2 mm thickness spaced apart by 8 to 20 mm.

Classifications:

International (IPC 8-9): A47L1/16 B32B17/00 B32B17/10 B32B3/08 B32B7/12 B64C1/14 B64D15/12 H05B3/84 H05B3/86 (Advanced/Invention)
CPC: B32B17/10174 B32B17/10192 B64C1/14 B32B17/10761 B32B17/1077 B32B17/10788 B64C1/1484 B32B2311/04 B64D15/12 B32B17/10183 B32B7/12 B32B2307/202 B32B2305/345 B32B2605/006 B32B2250/05 B32B2315/08 B32B2333/12 B32B2369/00 B32B17/10211 H05B3/86



Family:

Publication number	Publication date	Application number	Application date
BR112017025608 A2	20180807	BR20171125608	20160630
CA2987095 AA	20171124	CA20162987095	20160630
CN107889557 A	20180406	CN201680039233	20160630
EP3317097 A1	20180509	EP20160742358	20160630
FR3038249 A1	20170106	FR20150056269	20150702
IN201717043578 A	20171229	IN201717043578	20171205
KR20180025871 A	20180309	KR20177037406	20160630
US2018208293 AA	20180726	US20160738757	20160630
WO17001792 A1	20170105	WO2016FR51652	20160630

Priority:

FR20150056269 20150702 WO2016FR51652 20160630

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SA ; SAINT GOBAIN GLASS FRANCE FACTORY

Assignee(s): TONDU THOMAS ; CHAUSSADE PIERRE ; LEGOIS VINCENT

Inventor(s): (std): CHAUSSADE PIERRE ; LEGOIS VINCENT ; PIERRE CHAUSSADE ; THOMAS TONDU ; TONDU THOMAS ; VINCENT LEGOIS

Agent(s): GOUDREAU GAGE DUBUC ; SAINT GOBAIN RECHERCHE

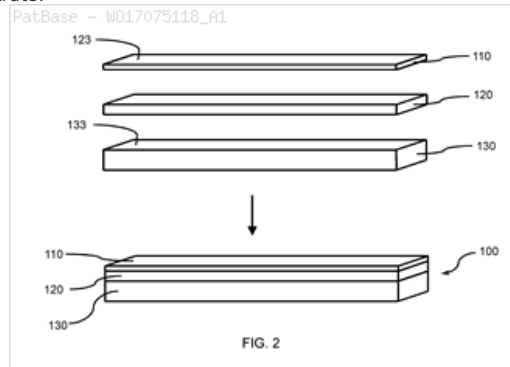
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Title: METHOD OF LAMINATING ULTRA-THIN GLASS TO NON-GLASS SUBSTRATES

Abstract: Embodiments of the present disclosure relate generally to methods of forming a laminate structure. In one or more embodiments, the method includes situating an interlayer between a glass substrate and a non-glass substrate having a softening point to form an assembled stack, heating the assembled stack to a temperature in a range of greater than the T_g of the interlayer to less than the softening point of the non-glass substrate and applying a force to at least one of the laminate glass surface and the laminate non-glass surface to bond that counter-balances thermal stress and polymer cure forces during bonding and prevents warpage, distortion and breakage of the laminate. In some embodiments, the interlayer has a coefficient of thermal expansion (CTE) at least 10 times greater than the CTE of the glass substrate.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B37/00 B32B37/10 B32B37/12 B32B37/14 (Advanced/Invention)
CPC: B32B17/10018 B32B37/144 B32B2037/1253 B32B17/061 B32B17/064 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B37/0015 B32B2307/30 B32B2309/02 B32B17/10137 B32B17/10816 B32B37/1009 B32B2309/105



Family:

Publication number	Publication date	Application number	Application date
■ CN108349230 A	20180731	CN201680063342	20161027
■ EP3368310 A1	20180905	EP20160791769	20161027
■ KR20180073655 A	20180702	KR20187014742	20161027
■ WO17075118 A1	20170504	WO2016US58967	20161027

Priority:

US20150246806P 20151027 WO2016US58967 20161027

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): KANG KIAT CHYAI ; LEWIS SUE CAMILLE ; NATARAJAN GOVINDARAJAN ; PARK MARIANNE GRIESBACH ; WETMORE NATHANIEL DAVID

Agent(s): EPPING HERMANN FISCHER; PATEL PAYAL A

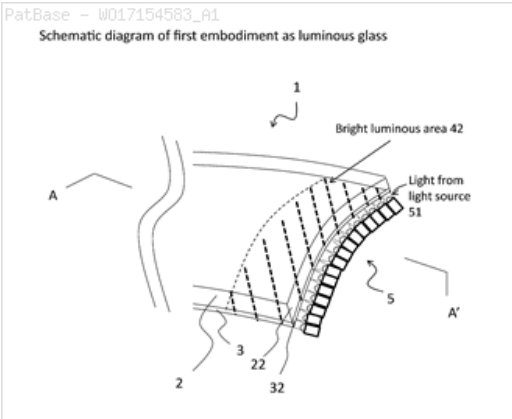
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Title: GLASS WINDOW HAVING A LUMINOUS CAPABILITY

Abstract: Disclosed is a glass window having a luminous capability, which is suitable for use in automotive applications, architectural applications, or other applications. Exemplary embodiments of a glass window having a luminous capability include one or more glass sheet layers, a thin film layer having fine particles dispersed in a matrix of a thin film material, and at least one light source for introducing light into the thin film layer. The fine particles scatter the light and generate luminousness of the glass window. Exemplary embodiments of a glass window having luminous capability may further include one or more resinous sheet layers or one or more interlayers such as a plastic film layer.

Classifications:

International (IPC 8-9): B32B17/10 C03C1/00 C03C17/00 F21V8/00 (Advanced/Invention)
CPC: C03C17/007 B32B17/10541 C03C1/008 C03C2217/46 C03C2217/48 C03C2217/485 C03C2218/113 G02B6/0055 B32B17/10018 B32B17/10036 B32B17/10761 B32B17/1077 B32B17/10788 B32B2323/04 B32B2327/06 B32B2367/00 B32B2369/00



Family:

Publication number	Publication date	Application number	Application date
WO17154583 A1	20170914	WO2017JP06695	20170223

Priority:

US20160305118P 20160308 US20160414192P 20161028

Probable Assignee: CENTRAL GLASS CO LTD

Assignee(s): (std): CENTRAL GLASS CO LTD

Inventor(s): (std): BARD MICHAEL ; NAKAI NOBUYUKI ; OBARA YOSHIHIKO ; SOLCHENBACH TOBIAS

Agent(s): KOBAYASHI HIROMICHI ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: A LAMINATED GLASS AND AN INTERLAYER FILM FOR THE SAME

Abstract: This invention relates to an interlayer film made of a composition comprising 100 parts by weight of ethylene-vinyl acetate copolymer or ethylene-(meth)acrylate copolymer, 0.01 to 4 parts by weight of a transparency improvement agent, 0.01 to 4 parts by weight of a silane coupling agent and 1 to 40 parts by weight of a rosin resin or hydrocarbon resin, and laminated glass which uses the interlayer film. This invention also relates to a laminated glass for vehicle side window to be mounted to a vehicle side window so that it can go up and down, comprising an interlayer film interposed between glass plates, the interlayer film being made of a resin film containing an ethylene-vinyl acetate copolymer or an ethylene-(meth)acrylate copolymer or a modified product thereof as a main component.

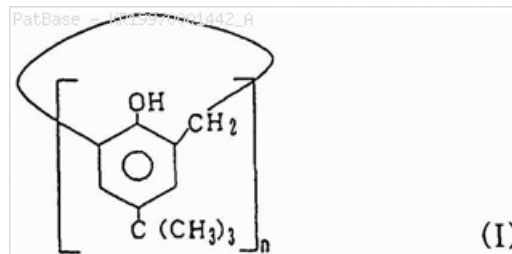
Classifications:

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International (IPC 1-7): B32B17/10 B32B27/32 B32B27/36 B60J1/00 B60J1/17 C03C27/12 C08J5/18 C08K5/04 C08K5/54 C08L23/08 C08L31/04 C08L33/06 C08L33/08 C08L33/10 C08L51/06 C08L93/04

CPC: B32B17/10605 B32B17/10018 B32B17/10036 B32B17/10688 B32B17/10743 B32B17/10761 B32B17/10788 B32B2369/00

European: B32B17/10C2 B32B17/10C4 B32B17/10G12 B32B17/10G24 B32B17/10G28 B32B17/10G36 L32B369/00



Family:

Publication number	Publication date	Application number	Application date
AU199654684 A1	19961219	AU19960054684	19960530
AU707073 B2	19990701	AU19960054684	19960530
CA2178288 AA	19961209	CA19962178288	19960605
CA2178288 C	20090210	CA19962178288	19960605
CN1075771 C	20011205	CN19961007782	19960530
CN1142437 A	19970212	CN19961007782	19960530
DE69626442 D1	20030410	DE19966026442	19960514
DE69626442 T2	20031224	DE19966026442T	19960514
EP0747210 A2	19961211	EP19960107691	19960514
EP0747210 A3	19970924	EP19960107691	19960514
EP0747210 B1	20030305	EP19960107691	19960514
JP9110481 A2	19970428	JP19960081361	19960403
JP9188548 A2	19970722	JP19960051622	19960308
KR100451287 B1	20050406	KR19960019979	19960605
KR19970001442 A	19970124	KR19960019979	19960605
SG42380 A1	19970815	SG19960007486	19960402

Priority:

JP19950141841 19950608 JP19950203135 19950809 JP19950287322 19951106
 JP19960051622 19960308 JP19960081361 19960403 CA19962178288 19960605
 KR19960019979 19960605

Probable Assignee: SEKISUI CHEMICAL CO LTD

Assignee(s): (std): SEKISUI CHEMICAL CO LTD

Assignee(s): SHOHI HAJIME ; UEDA NAOKI ; BANDO AKIHIKO ; HAYASHI SATOSHI ; SEKISUI CHEM CO LTD ; SEKISUI CHEMICAL CO

Inventor(s): (std): AKIHIKO SAKATO ; HATSUMI SHOHI ; NAOKI SUGITA ; UEDA NAOKI ; SHOHI HAJIME ; BANDO AKIHIKO ; SHOBI HAJIME ; SAKATO ; MATSUMI SHOHI ; AKIHIKO ; HAYASHI SATOSHI

Inventor(s): HAJIME SHOHI ; AKIHIKO BANDO ; SUGITA NAOKI ; SHOHI MATSUMI ; SATOSHI HAYASHI ; SAKATO AKIHIKO ; NAOKI UEDA ; SHOHI HATSUMI

Agent(s): GRIFFITH HACK; FETHERSTONHAUGH AND CO

Designated states: DE FR GB

Title: GLAZING**Abstract:** A transparent glass/plastic material composite pane, comprising at least one transparent plastic pane, at least one glass pane and according to demand an adhesion-promoting intermediate layer between the glass pane and the plastic pane, the glass pane being a glass film of a layer thickness of from 30 to 1,000 μm .**Classifications:****International (IPC 8-9):** B32B17/10 B32B27/06

C03C27/12 (Advanced/Invention);

B32B17/06 B32B27/06 C03C27/12 (Core/Invention)

International (IPC 1-7): B32B15/08 B32B17/06 B32B17/10 B32B27/06

B32B27/10 B32B27/30 B32B27/36 B32B31/06 B32B7/12 B6011/00

B63B19/00 B64C1/14 C03C27/10 C03C27/12 C08F2/00 C08F2/50

E04B2/88 E06B5/16 E06B5/20 F21M7/00 F21V3/04

CPC: Y10T428/31507 Y10T428/31576 Y10T428/31601 Y10T428/31616

Y10T428/31645 B32B17/10 B32B17/10018 B32B17/10036 B32B17/10137

B32B17/10302 B32B17/1033 B32B17/10899 B32B17/10908 B32B7/12

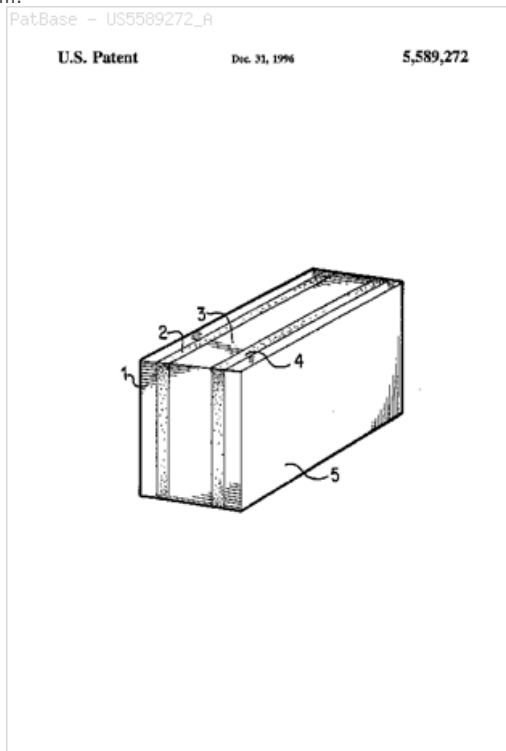
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European: B32B17/10 B32B17/10C2 B32B17/10C30B B32B17/10C4

B32B17/10E16B B32B17/10E22 B32B17/10G30 B32B17/10L16

B32B17/10L16B L32B333/08 L32B333/12 L32B369/00

US: 428/412 428/424.4 428/425.6 428/426 428/430 428/441**Family:**

Publication number	Publication date	Application number	Application date
DE4406097 A1	19950831	DE19944406097	19940225
EP0669205 A1	19950830	EP19950101678	19950208
US5589272 A	19961231	US19950394350	19950227

Priority:

DE19944406097 19940225

Probable Assignee: DORNIER GMBH**Assignee(s):** (std): DORNIER GMBH**Assignee(s):** DORNIER GMBH 88090 IMMENSTAAD DE**Inventor(s):** (std): ABERSFELDER DR GUNTER ; ABERSFELDER GUENTER DR ; ARNOLD MANFRED DR ; BRAUN RUEDIGER DR ; MEISEL THOMAS DR ; SCHERBER WERNER DR ; SCHERBER WERNER DR ; UHL STEFAN ; SCHERBER WERNER ; MEISEL THOMAS ; BRAUN RUEDIGER ; ARNOLD MANFRED ; ABERSFELDER GUENTER**Inventor(s):** UHL STEFAN 70597 STUTTGART DE**Designated states:** DE FR GB IT

Title: LIGHTWEIGHT HEATED PLASTIC WINDOW ELEMENT WITH UNIQUE BUS BAR SYSTEM

Abstract: A novel solderless connection between a bus bar and an array of electroconductive wires avoids cracks in plastic window elements, particularly the outer component of curved lightweight heated windows, particularly those used in aircraft.

Classifications:

International (ipc 8-9): B64C 1/14 H05B3/84

H05B3/86 (Advanced/Invention);

B64C 1/00 H05B3/84 (Core/Invention)

International (ipc 1-7): H05B3/06

CPC: Y10S428/922 B32B17/10018 B32B17/10761 B32B17/1077

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H05B3/84 H05B3/86 H05B2203/013 H05B2203/016 B32B17/10385

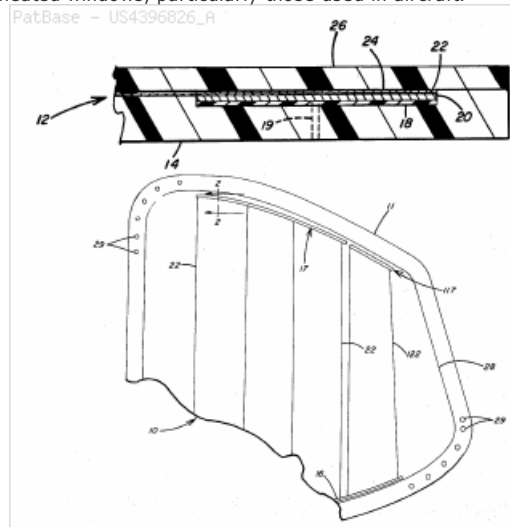
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US: 156/273.9 174/261 174/68.5 219/203 219/522 219/541 219/544

219/547 244/134.00D 244/134D 264/272.14 29/613 428/38 428/922



Family:

Publication number	Publication date	Application number	Application date
US4396826 A	19830802	US19810292458	19810813

Priority:

US19810292458 19810813

Probable Assignee:

PPG IND INC

Assignee(s): (std):

PPG IND INC ; PPG INDUSTRIES INC

Assignee(s):

PPG IND

Inventor(s): (std):

ALLEN DAVID C ; ORCUTT DEE R

Title: LAMINATED CONSTRUCTION ELEMENT OF GLASS AND STONE

Abstract: A method of manufacturing a laminated sheet that includes an element of natural stone and in particular manufacturing a lamination formed from at least one glass pane and one natural stone sheet, in which the natural stone element is connected to another material by an adhesive bond over its entire surface; according to the invention, the porous natural stone element is completely impregnated under pressure by a liquid that forces the gas inclusions out of the stone material and durably seals the outer surface of the natural stone element.

Classifications:

International (IPC 8-9): B32B17/06 B32B37/12 B32B38/00 B32B38/08 B32B9/00 B32B9/04 C03C27/00 E04C2/54

E04F13/14 (Advanced/Invention);

B32B17/06 (Advanced/Non-invention);

B32B17/06 B32B37/12 B32B38/00 B32B38/08 B32B9/00 B32B9/04 C03C27/00 E04C2/54 E04F13/14 (Core/Invention);

B32B17/06 (Core/Non-invention)

CPC: B32B9/002 B32B38/08 B32B2260/046 B32B2307/412 B32B2315/08 B32B2318/04 B32B9/04 B32B17/10018 B32B17/10733

B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10779 B32B17/10788 B32B17/10972 E04F13/144

European: B32B17/10C2 B32B17/10G22 B32B17/10G24 B32B17/10G28 B32B17/10G30 B32B17/10G32 B32B17/10G36

B32B17/10L20 B32B9/04 E04F13/14F

Family:

Publication number	Publication date	Application number	Application date
DE102006040008 A1	20080320	DE200610040008	20060825
EP2054224 A1	20090506	EP20070823635	20070725
WO08023123 A1	20080228	WO2007FR51718	20070725

Priority:

DE200610040008 20060825 WO2007FR51718 20070725

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): RUBBERT FRANK ; SAINT GOBAIN ; SAINT GOBAIN GLASS DEUTSCHLAND ; SCHREIBER WALTER

Assignee(s): SAINT GOBAIN GLASS DEUTSCHLAND GMBH ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): RUBBERT FRANK ; SCHREIBER WALTER

Agent(s): CARDIN ELISE; SAINT-GOBAIN RECHERCHE

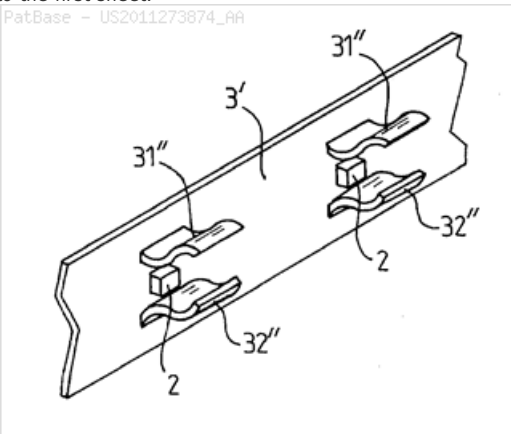
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LIGHT-EMITTING DIODE MODULE FOR A VEHICLE, AND DIODE MOUNTING

Abstract: A diode module, for a vehicle, includes a first curved transparent sheet, diodes, each including an emitting chip able to emit at one or more wavelengths in the visible, and guided in the first sheet after injection via the edge face or via the sidewall of one or more holes housing the diodes in one of the main faces of the sheet, and including a bracket supporting the diodes, bordering the glazing, including a clip, for fastening to the glazing, having a middle part, a first discontinuous flange having a first set of tabs, for fastening and/or centering the clip, which are distanced from each other and a second discontinuous flange having a second set of tabs, for fastening the clip, which are distanced from each other, the first and/or second set(s) of tabs thus forming a retainer to retain the diodes in preset vertical positions relative to the first sheet.

Classifications:

International (IPC 8-9): B60Q3/02 F21S8/10 F21V31/00 F21V9/00 F21W101/02 F21Y101/02 G02B6/00 H01L33/58 (Advanced/Invention); B60Q3/02 F21S8/10 F21W101/02 F21Y101/02 G02B6/00 (Advanced/Non-invention); B60Q3/00 F21S8/10 F21V31/00 G02B6/00 (Core/Invention)
CPC: B32B17/10018 B32B17/10761 B32B17/1077 B32B17/10788 B32B2369/00 G02B6/002 G02B6/0021 G02B6/0068 G02B6/0091 B32B17/10541 B60Q3/208 B32B17/10036 B32B17/10293 G02B6/00
European: B60Q3/02B2 G02B6/00L6I4S G02B6/00L6S2 G02B6/00L6U6R S02B6/00L6I4S4
US: 362/231 362/231P



Family:

Publication number	Publication date	Application number	Application date
BRPI0920060 A2	20160405	BR2009PI20060	20091027
CN102245432 A	20111116	CN200980150084	20091027
EA201170612 A1	20111230	EA20110070612	20091027
EP2349783 A1	20110803	EP20090760222	20091027
FR2937711 A1	20100430	FR20080057299	20081027
FR2937711 B1	20101119	FR20080057299	20081027
IN01708KN2011 A	20110826	IN2011KN01708	20110425
JP2012506811 T2	20120322	JP20110532700T	20091027
KR20110081308 A	20110713	KR20117011972	20091027
MX2011004386 A1	20110728	MX20110004386	20091027
US2011273874 AA	20111110	US20090125879	20091027
WO10049639 A1	20100506	WO2009FR52065	20091027

Priority:

FR20080057299 20081027 WO2009FR52065 20091027

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): MOTTELET BEATRICE ; SAINT GOBAIN ; SAINT GOBAIN SA ; VERRAT ADELE

Assignee(s): SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): ADELE VERRAT ; BEATRICE MOTTELET ; MOTTELET BEATRICE ; VERRAT ADELE ; VERRAT DEBAILLEUL ADELE

Inventor(s): ADELE VERRAT DEBAILLEUL

Agent(s): CARDIN ELISE; SAINT GOBAIN RECHERCHE; KAWAGUTI AND PARTNERS

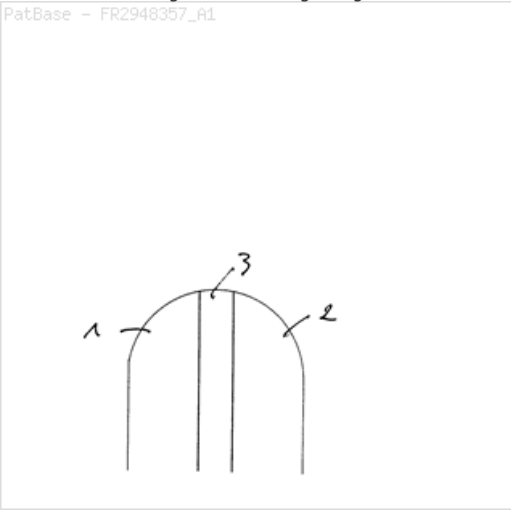
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONVEX LAMINATED GLAZING USEFUL FOR E.G. LAND, AIR OR WATER TRANSPORT VEHICLES, BUILDINGS, STREET FURNITURES AND INTERIOR AND PUBLIC DEVELOPMENT, COMPRISES TWO SHEETS MADE OF GLASS OR POLYMER, AND AN INTERMEDIATE ADHESIVE LAYER

Abstract: The convex laminated glazing comprises two sheets (1, 2) made of glass materials or polymer materials, and an intermediate adhesive layer (3). An independent claim is included for a process for fabricating a laminated glazing.

Classifications:

International (IPC 8-9): B32B17/06 C03C27/12 (Advanced/Invention)
CPC: B32B17/1099 B32B17/10018 B32B17/10036 B32B17/10155 B32B17/10293 B32B17/10761 B32B17/1077 B32B2333/12 B32B2369/00
European: B32B17/10C2 B32B17/10C4 B32B17/10E16 B32B17/10G28 B32B17/10G30 B32B17/10L24 L32B333/12 L32B369/00



Family:

Publication number	Publication date	Application number	Application date
FR2948357 A1	20110128	FR20090055089	20090722

Priority:

FR20090055089 20090722

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): SAINT GOBAIN

Assignee(s): SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): DUMENIL THIERRY ; PICARD STEPHANE ; BURELOUX DOMINIQUE

Inventor(s): DOMINIQUE BURELOUX ; STEPHANE PICARD ; THIERRY DUMENIL

Agent(s): SAINT GOBAIN RECHERCHE

Title: LAMINATED STRUCTURE FOR DISPLAYING INFORMATION

Abstract: The invention relates to: a laminated structure comprising at least successively a substrate, a phosphor first layer and an adhesive polymer material second layer; a process for preparing this structure; a laminated glazing comprising this structure.

Classifications:

International (ipc 8-9): B05D1/02 B05D1/26 B32B17/10 B32B27/06 B32B27/18 B32B37/12 B32B7/02 B60J1/00 B60J1/02 C03C27/12 G02B1/10 G02B27/01 (Advanced/Invention)

International (ipc 1-7): B32B17/10 G02B27/01

CPC: B32B17/1077 Y10T428/273 Y10T428/2848 Y10T428/31507 Y10T428/31725 Y10T428/31938 G02B27/0101 G02B1/10 G02B2027/0194 B32B17/10018 B32B17/10036 B32B17/10669 B32B17/10761 B32B17/10788 G02B27/01

European: B32B17/10C2 B32B17/10C4 B32B17/10G28 B32B17/10G30 B32B17/10G36 B32B17/10G8D G02B27/01 S02B27/01F1

US: 156/278 427/66 428/341 428/354 428/412 428/426 428/474.4 428/523

Family:

Publication number	Publication date	Application number	Application date
BR112013000258 A2	20171107	BR20131100258	20110706
CA2804321 AA	20130102	CA20112804321	20110706
CN103052502 A	20130417	CN201180033790	20110706
CN103052502 B	20160427	CN201180033790	20110706
DE602011033398 D1	20170119	DE201160033398T	20110706
EA025008 B1	20161130	EA20130090067	20110706
EA201390067 A1	20130530	EA20130090067	20110706
EP2590818 A1	20130515	EP20110743103	20110706
EP2590818 B1	20161214	EP20110743103	20110706
ES2617360 T3	20170616	ES20110743103T	20110706
FR2962363 A1	20120113	FR20100002860	20100707
FR2962363 B1	20130104	FR20100002860	20100707
IN00279CN2013 A	20150703	IN2013CN00279	20130111
JP2013536101 T2	20130919	JP20130517484T	20110706
JP5997141 B2	20160928	JP20130517484T	20110706
KR20130125353 A	20131118	KR20137003117	20110706
MX2013000022 A1	20130501	MX20130000022	20110706
MX342801 B	20161013	MX20130000022	20110706
PL2590818 T3	20170630	PL20110743103T	20110706
PT2590818 T	20170301	PT20110743103T	20110706
TR201702303 T4	20170321	TR20170002303T	20110706
US2013202883 AA	20130808	US20110808682	20110706
US2016252723 AA	20160901	US20160151580	20160511
WO12004535 A1	20120112	WO2011FR51612	20110706

Priority:

FR20100002860 20100707 EP20110743103 20110706 WO2011FR51612 20110706
US20130808682 20130416 US20160151580 20160511

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): DEKONINCK ALEXANDRA ; SABLAYROLLES JEAN ; SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SA ; SEKISUI CHEMICAL CO LTD

Assignee(s): SEKISUI CHEMICAL CO

Inventor(s): (std): ALEXANDRA DEKONINCK ; DEKONINCK ALEXANDRA ; JEAN SABLAYROLLES ; SABLAYROLLES JEA ; SABLAYROLLES JEAN ; DEKONINCK ALEXANDRIA

Agent(s): GOUDREAU GAGE DUBUC ; G RONALD BELL AND ASSOCIATES; STOLMAR AND PARTNER PATENTANWALTE PARTG MBB; RIBEAUDEAU MARION CHRISTINE; SAINT GOBAIN RECHERCHE; DE ELZABURU ALBERTO; CABINET CHAILLOT; AOKI ATSUSHI; KOGA TETSUJI; ISHIDA TAKASHI; ALI CAVUSOGLU

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MIRROR COMPRISING A POLYMER BASED ADD-ON FILM

Abstract: The invention relates to a mirror comprising a coating for protecting against chemical attack, in particular for corrosion and mechanical attack, such as for example scratching, consisting of a polymer based add-on film and its method of manufacture. The protective film comprises at least one polymer based layer having a barrier effect to corrosion agents.

Classifications:

International (IPC 8-9): C03C17/38 G02B1/10 G02B5/08 (Advanced/Invention)

CPC: C03C17/38 G02B5/0866 C03C17/3663 B32B17/10018 B32B17/1022 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B2327/00 B32B2333/04 B32B2367/00 G02B1/14 G02B1/105

Family:

Publication number	Publication date	Application number	Application date
EP2791715 A1	20141022	EP20120810387	20121211
FR2984529 A1	20130621	FR20110061787	20111216
FR2984529 B1	20141010	FR20110061787	20111216
IN04880DN2014 A	20150320	IN2014DN04880	20140616
WO13088055 A1	20130620	WO2012FR52874	20121211

Priority:

FR20110061787 20111216 WO2012FR52874 20121211

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): SAINT GOBAIN

Assignee(s): SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): LAVAL PHILIPPE ; RACHET VINCENT

Inventor(s): VINCENT RACHET ; PHILIPPE LAVAL

Agent(s): DOUYSSSET LAURENCE; SAINT GOBAIN RECHERCHE; SAINT-GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TRANSPARENT LAMINATES COMPRISING INKJET PRINTED CONDUCTIVE LINES AND METHODS OF FORMING THE SAME

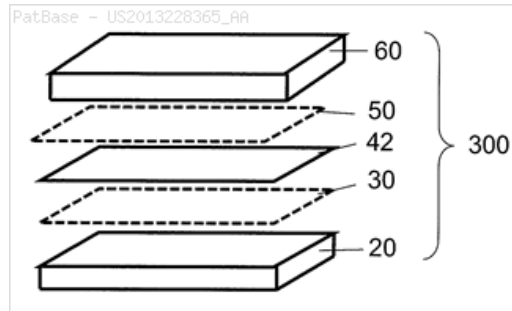
Abstract: A transparency including a conductive mesh is disclosed. The conductive mesh is formed by a plurality of inkjet printed electrically conductive lines on a polymer film or a glass, polyacrylate, polycarbonate, or polyurethane substrate, wherein at least one inkjet printed electrically conductive line intersects at least one other inkjet printed electrically conductive line. A flying vehicle including a transparency including a conductive mesh is also disclosed. Additionally, a method of preparing a transparency by laminating a polymer film and a substrate together, wherein a conductive mesh is formed on the polymer film by a plurality of inkjet printed electrically conductive lines, is also disclosed.

Classifications:

International (IPC 8-9): B32B15/08 B32B15/082 B32B15/09 B32B15/095 B32B15/20 B32B17/06 B32B17/10 B32B27/00 B32B27/06 B32B27/08 B32B27/28 B32B27/30 B32B27/36 B32B27/40 B32B3/08 B32B3/14 B32B3/16 B32B3/24 B32B37/06 B32B37/10 B32B37/14 B60J1/00 B60J1/20 B64C1/14 G02F1/155 H01B5/14 H05B3/84 H05K1/02 H05K1/03 H05K1/09 H05K9/00 (Advanced/Invention); B64C1/14 H01R13/20 (Advanced/Non-invention)

CPC: B32B3/08 B32B3/14 B32B3/16 B32B15/08 B32B15/082 B32B15/09 B32B15/095 B32B15/20 B32B17/10018 B32B17/10192 B32B17/1022 B32B17/10761 B32B17/1077 B32B17/10798 B32B27/28 B32B27/30 B32B27/36 B32B27/365 B32B27/40 B32B2307/202 B32B2307/412 B32B2369/00 B32B2375/00 B32B2605/006 B32B2605/08 B32B2605/18 H05B3/84 H05B2203/002 H05B2203/013 H05B2203/017 B32B17/10 B32B2367/00 Y10T156/10 H05K1/092 H05K1/0296 H05K1/0353 H05K1/0274 G02F1/155 H05K2201/0707 B32B27/08

US: 1/1 156/182 156/306.6 156/60 174/257 219/203 359/245



Family:

Publication number	Publication date	Application number	Application date
BR112014021607 A2	20170620	BR20141121607	20121114
BR112014021607 A8	20170718	BR20141121607	20121114
CA2865916 AA	20140828	CA20122865916	20121114
CN104395066 A	20150304	CN201280071821	20121114
EP2819839 A1	20150107	EP20120791398	20121114
JP2015513487 T2	20150514	JP20140559882T	20121114
JP2018058375 A2	20180412	JP20170234207	20171206
TW201337964 A	20130916	TW20120143934	20121123
TWI579866 B	20170421	TW20120143934	20121123
US2013228365 AA	20130905	US20120411476	20120302
US2016242282 AA	20160818	US20160060436	20160303
US2018192515 AA	20180705	US20180900473	20180220
US9302452 BB	20160405	US20120411476	20120302
US9900980 BB	20180220	US20160060436	20160303
WO13130137 A1	20130906	WO2012US64979	20121114

Priority:

US20120411476 20120302 JP20140559882T 20121114 WO2012US64979 20121114
US20160060436 20160303 JP20170234207 20171206 US20180900473 20180220

Probable Assignee: PPG IND OHIO INC

Assignee(s): (std): BIMANAND ALEXANDER ; LAKDAWALA KHUSHROO H ; PPG IND OHIO INC ; UPRETY KRISHNA K

Assignee(s): PPG INDUSTRIES OHIO INC ; PPG IND OHIO INC3800 WEST 143RD STREETCLEVELANDOH44111US

Inventor(s): (std): BIMANAND ALEXANDER ; KHUSHROO H LAKDAWALA ; LAKDAWALA KHUSHROO H ; UPRETY KRISHNA K ; KRISHNA K UPRETY ; ALEXANDER BIMANAND

Inventor(s): KHUSHROO H L AKDAWALA ; BIMANAND ALEXANDERUS ; UPRETY KRISHNA KUS ; LAKDAWALA KHUSHROO HUS

Agent(s): FETHERSTONHAUGH AND CO; MUELLER WOLFRAM HUBERTUS; AOKI ATSUSHI; KOGA TETSUJI; ISHIDA TAKASHI; LEWIS ROCA ROTHGERBER CHRISTIE LLP; MARANTIDIS CONSTANTINE

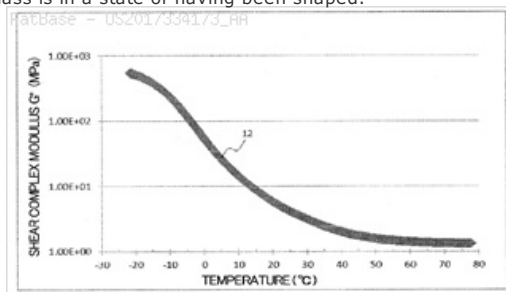
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: INTERLAYER FILM FOR LAMINATED GLASS AND LAMINATED GLASS

Abstract: The present invention provides an interlayer film for laminated glass which has excellent sound insulating properties even when the thickness is reduced, and also hardly causes optical unevenness. An interlayer film for laminated glass includes at least one layer A containing a thermoplastic elastomer, wherein the shear storage modulus of the layer A at 70 degrees centigrade as measured by performing a dynamic viscoelasticity test at a frequency of 1,000 Hz in accordance with ASTM D4065-06 is 1 MPa or more, and a layer having a higher shear storage modulus than the layer A is provided on at least one surface of the layer A, and at least one surface of the interlayer film for laminated glass is in a state of having been shaped.

Classifications:

International (IPC 8-9): B32B17/10 B32B25/00 B32B25/08 B32B25/14 B32B27/00 B32B27/06 B32B27/08 B32B27/18 B32B27/22 B32B27/30 B32B27/32 B32B3/30 B32B7/02 B60J1/00 B60J1/02 C03C27/12 C08F297/02 C08F297/04 C08F8/04 C08J5/18 C08K3/22 C08K3/24 C08K3/38 C08K5/07 C08K5/101 C08K5/11 C08K5/20 C08K5/3417 C08K5/3475 C08K5/3492 C08K9/02 C08L101/00 C08L21/00 C08L29/14 C08L53/00 C08L53/02 C09J11/06 C09J129/14 C09J201/00 C09J7/00 E06B3/66 E06B3/67 E06B5/20 (Advanced/Invention); B32B25/04 (Advanced/Non-invention)
CPC: E06B3/66 B32B17/10036 B32B17/10633 B32B17/10761 B32B27/18 B32B2307/304 B32B27/22 B32B2605/006 B32B27/08 B32B27/306 B32B7/02 B32B2307/102 E06B3/6707 B32B25/042 E06B3/6715 B32B2307/30 B32B2309/105 B32B17/10577 B32B17/10587 B32B17/10724 B32B17/10743 B32B17/1077 B32B17/10788 B32B17/1055 B32B25/08

**Family:**

Publication number	Publication date	Application number	Application date
■ CN107108348 A	20170829	CN201580061097	20151110
■ CN107108349 A	20170829	CN201580061149	20151110
■ CN107108350 A	20170829	CN201580061177	20151110
■ CN107108351 A	20170829	CN201580061183	20151110
■ CN107108352 A	20170829	CN201580061191	20151110
■ EP3219683 A1	20170920	EP20150858216	20151110
■ EP3219683 A4	20180627	EP20150858216	20151110
■ EP3219684 A1	20170920	EP20150858658	20151110
■ EP3219684 A4	20180704	EP20150858658	20151110
■ EP3219685 A1	20170920	EP20150858800	20151110
■ EP3219686 A1	20170920	EP20150858865	20151110
■ EP3219687 A1	20170920	EP20150859444	20151110
■ JP2016076336 A1	20170720	JP20160559076T	20151110
■ JP2016076337 A1	20170427	JP20160559077T	20151110
■ JP2016076338 A1	20170427	JP20160559078T	20151110
■ JP2016076339 A1	20170720	JP20160559079T	20151110
■ JP2016076340 A1	20170817	JP20160559080T	20151110
■ JP2016107632 A2	20160620	JP20150220817	20151110
■ JP2016108220 A2	20160620	JP20150220812	20151110
■ JP2016108221 A2	20160620	JP20150220813	20151110
■ JP2016108222 A2	20160620	JP20150220814	20151110
■ JP2016108223 A2	20160620	JP20150220815	20151110
■ JP2016108224 A2	20160620	JP20150220816	20151110
■ JP2016108225 A2	20160620	JP20150220818	20151110
■ JP2016108226 A2	20160620	JP20150220819	20151110
■ JP2016108227 A2	20160620	JP20150220820	20151110
■ JP2016108228 A2	20160620	JP20150220821	20151110
■ JP2016108229 A2	20160620	JP20150220822	20151110
■ JP2016108230 A2	20160620	JP20150220823	20151110
■ JP2017124970 A2	20170720	JP20170026448	20170215
■ JP2017124971 A2	20170720	JP20170026480	20170215
■ JP2017160112 A2	20170914	JP20170038016	20170301
■ JP6105176 B1	20170329	JP20160559078T	20151110
■ JP6138377 B1	20170531	JP20160559076T	20151110
■ JP6140907 B1	20170607	JP20160559077T	20151110
■ JP6305560 B1	20180404	JP20160559079T	20151110
■ KR20170082599 A	20170714	KR20177015657	20151110
■ KR20170082614 A	20170714	KR20177015931	20151110
■ KR20170082616 A	20170714	KR20177015933	20151110
■ KR20170084185 A	20170719	KR20177015641	20151110
■ KR20170084220 A	20170719	KR20177015930	20151110
■ US2017334173 AA	20171123	US20150525506	20151110
■ US2017361575 AA	20171221	US20150525541	20151110
■ WO16076336 A1	20160519	WO2015JP81664	20151110
■ WO16076337 A1	20160519	WO2015JP81665	20151110
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■ WO16076340 A1	20160519	WO2015JP81668	20151110

Priority:

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Probable Assignee: KURARAY CO LTD**Assignee(s):** (std): KURARAY CO**Assignee(s):** KURARAY CO LTD**Inventor(s):** (std): ASADA MITSUNORI ; ISOKAMI KOICHIRO ; ISOUE KOICHIRO ; KAMATA YOHEI ; KOBAYASHI TAKUYA ; KUSUDOU TAKESHI ; KUSUFUJI TAKESHI ; OSHITA SHINYA ; YUI TAIGA**Agent(s):** MUELLER BORE AND PARTNER PATENTANWALTE PARTG MBB; LIGHTHOUSE INT PATENT FIRM**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: IMPACT RESISTANT LAMINATED WINDOWS MANUFACTURE

Abstract: A component for a laminated window, the component comprising a glass sheet having an etched hydrated surface and a protective layer of plastics material covering the etched surface, the protective layer being selected so as to be bondable to a plastics interlayer material. The invention also provides a laminated window including a first ply comprising a glass sheet having an etched hydrated surface and a protective layer of plastics material covering the etched surface and a second ply to which the first ply is bonded by a plastics interlayer, the material of the interlayer and of the protective layer being selected so as to be bondable together. The present invention further provides a method of producing a pre-product glass sheet having improved bending strength.

Classifications:

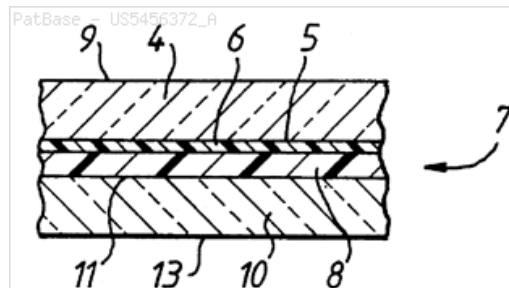
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US: 216/34 216/97 428/410 428/426



Family:

Publication number	Publication date	Application number	Application date
BRPI9303384 A	19940315	BR1993PI03384	19930813
CN1083028 A	19940302	CN19931009581	19930814
CZ9301677 A3	19941116	CZ19930001677	19930816
DE4227050 A1	19940217	DE19924227050	19920815
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EP0586100 A3	19950524	EP19930306159	19930804
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PL300086 A1	19940221	PL19930300086	19930813
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Priority:

DE19924227050 19920815 US19930105949 19930813 US19940290619 19940815
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Probable Assignee: FLACHGLAS INTG GLASVEREDELUNGS

Assignee(s): (std): FLACHGLAS INTG GLASVEREDELUNGS ; FLACHGLAS INTG GLASVEREDELUNGS GMBH ; FLACHGLAS INTG GLASVEREDELUNGS ; FURAHIGURASU II EN T G GURASUB

Assignee(s): FURAHIGURASU II EN T G GURASUBUEREDERUNGUSU GMBH ; FLACHGLAS INTG GLASVEREDELUNG GMBH ; FLACHGLAS INTG GLASVEREDELUNGS GMBH 4650 GELSENKIR ; FLACHGLAS INTG GLASVEREDELUNGS GMBH 4650 GELSENKIRCHEN DE

Inventor(s): (std): IGOORU BOGUSURABUSUKII ; BURADEIMIIRU EFU SORINOBU ; BOGUSLAVSKI IGOR ; SOLINOV VLADIMIR F PROF ; BOGUSLAVSKI IGOR PROF ; SOLINOV VLADIMIR F ; SOLINOV VLADIMIR

Inventor(s): IGOR BOGUSLAVSKI ; VLADIMIR F SOLINOV

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Title: SOUND ABSORBING ARTICLE AND METHOD OF MAKING SAME

Abstract: A sound dampening glazing, for example an automotive windshield, in one embodiment includes a pair of glass sheets. In cross section and moving from one glass sheet to the other there is an interlayer e.g. polyvinyl butyral, an intermediate sheet e.g. a polyester sheet having a surface harder than the surface of the interlayer to smooth the interlayer surface, a sheet of dampening material, an intermediate sheet, an interlayer and the other glass sheet. In another embodiment, the glazing has two sheets of dampening material each having different sound dampening temperature range to provide the glazing with sound dampening properties over a broader temperature range. A method for making the glazing is also disclosed.

Classifications:

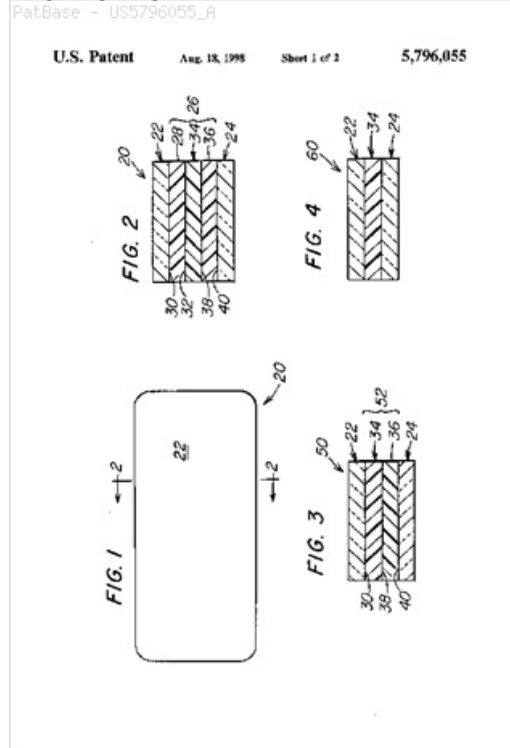
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European: B32B17/10 B32B17/10C B32B17/10C2 B32B17/10C4 B32B17/10C4B B32B17/10C6 B32B17/10E16B B32B17/10G28 B32B17/10G30 B32B17/10G36

US: 181/208 181/290 181/294

**Family:**

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BRPI9800176 A	19990302	BR1998PI00176	19980113
CA2222764 AA	19980713	CA19972222764	19971223
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CN1142060 C	20040317	CN20011038491	19980112
CN1188177 A	19980722	CN19981003617	19980112
CN1202345 C	20050518	CN19981003617	19980112
CN1392067 A	20030122	CN20011038491	19980112
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FI980043 A	19980714	FI19980000043	19980112
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JP10230568 A2	19980902	JP19980004749	19980113
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KR19980070457 A	19981026	KR19980000531	19980112
US5796055 A	19980818	US19970783596	19970113
US6119807 A	20000919	US19980084143	19980526

Priority:

US19970783596 19970113 CA19972222764 19971223 US19980084143 19980526

Probable Assignee: PITTSBURGH GLASS WORKS LLC

Assignee(s): (std): PPG IND OHIO INC ; PPG IND INC ; PPG INDUSTRIES INC

Assignee(s): GENERAL ELECTRIC CAPITAL AGENT AS CORP ; PITTSBURGH GLASS WORKS LLC ; GTS SERVICES LLC ; LYNX SERVICES LLC ; NEWSTAR FINANCIAL INC ; PPG IND ; PPG INDUSTRIES OHIO INC ; BANK OF AMERICA NA AGENT AS ; BENSON VERNON C JR ; DEUTSCHE BANK TRUST CO AMERICAS ; DEUTSCHE BANK TRUST CO NOTES COLLATERAL AGENT AS ; FREEMAN GLENN E

Inventor(s): (std): BENSON C ; BENSON JR VERNON C ; BENSON VERNON C JR ; BENSON VERNON C ; FREEMAN GLENN E ; FREEMAN GLENN E ; FONENG ; FOREMAN GELEN E ; FOREMAN JR GELEN E

Inventor(s): GLENN E FREEMAN ; GELEN E FOREMAN ; VERNON C BENSON ; VERNON C BENSON JR ; JR ; C BENSON ; BENSON JR

Agent(s): BORDEN LADNER GERVAIS LLP

Designated states: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: LAMINATED GLAZING WITH HIGH CRASH TEST RESISTANCE

Abstract: A laminated glazing includes at least one sheet (1) and a second sheet (2) bound to each other by an intercalated adhesive layer (3). The first sheet (1) projects beyond the second sheet (2) to form an exposed edge. The intercalated adhesive layer (3) extends over an exposed portion of the edge of the first sheet (1), and the edge of the intercalated adhesive layer (3) is at least in part covered by an intermediate element (4) suited to bond between the glazing or its constitutive elements (3) and on the body (5) through the intermediary of a cement element. This glazing has use as an automobile windshield with high crash test resistance.

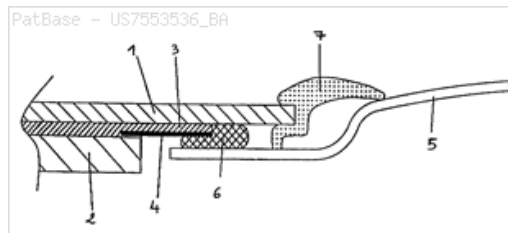
Classifications:

International (IPC 8-9): B32B17/10 B32B23/02 B32B27/32 B32B27/36 B32B27/40 B32B5/16 B60J1/00 C03C27/12 (Advanced/Invention); B32B17/06 B32B23/00 B32B27/32 B32B27/36 B32B27/40 B32B5/16 B60J1/00 C03C27/12 (Core/Invention)

International (IPC 1-7): B32B17/06 B32B17/10 B60J1/00 C03C27/12
CPC: Y10T428/24777 Y10T428/24802 Y10T428/24876 B32B17/10761 B32B17/10018 B32B17/10036 B32B17/10293 B32B17/10366 B32B17/1077 B32B27/36 B32B2369/00 F41H5/0407 Y10T428/31565 Y10T428/31736

European: B32B17/10C2 B32B17/10C4 B32B17/10E16 B32B17/10E30 B32B17/10G28 B32B17/10G30 B32B27/36 L32B369/00

US: 428/192 428/195.1 428/204 428/220 428/423.7 428/426 428/475.2



Family:

Publication number	Publication date	Application number	Application date
AT323596 E	20060515	AT20000400196T	20000126
DE60027335 D1	20060524	DE20006027335	20000126
DE60027335 T2	20070118	DE20006027335T	20000126
EP1025986 A1	20000809	EP20000400196	20000126
EP1025986 B1	20060419	EP20000400196	20000126
ES2261160 T3	20061116	ES20000400196T	20000126
FR2789382 A1	20000811	FR19990001407	19990205
FR2789382 B1	20020208	FR19990001407	19990205
JP2000233951 A2	20000829	JP20000027048	20000204
JP4754044 B2	20110824	JP20000027048	20000204
PT1025986 T	20060929	PT20000400196T	20000126
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Priority:

FR19990001407 19990205

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN VITRAGE

Assignee(s): SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN GLASS FRANCE COURBEVOIE

Inventor(s): (std): COLIN EMMANUEL ; EMMANUEL COLIN ; NAOUMENKO YVES

Inventor(s): YVES NAOUMENKO

Agent(s): SAINT GOBAIN RECHERCHE; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT PC

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: TRANSPARENCIES PRODUCED FROM EPOXY RESINS CURED WITH ADDUCTS OF TRIMETHOXYBOROXINE AND BENZYL ALCOHOL

Abstract: A highly heat resistant transparency of epoxy resins cured with adducts of trimethoxyboroxine and benzyl alcohol is disclosed. This transparency may exist in a composite with other layers of transparent material known to those skilled in the art. The epoxy resin having the trimethoxyboroxine and benzyl alcohol may also have triphenyl phosphite which further increases the resistance to intense heat for these transparencies in their use on military and industrial hardware.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/08 B32B27/18 B32B27/30 B32B27/36 B32B27/38 B32B27/40 C03C27/12 C08G59/00 C08G59/40 C08G59/62 C08G59/66 C08G59/68 C08J9/32 C08K5/49 C08K5/51 C08K5/54 C08K5/55 C08L33/00 C08L33/02 C08L63/00 C08L71/02 C08L83/04 (Advanced/Invention); B32B27/38 C08G59/00 C08L33/00 C08L63/00 (Advanced/Non-invention); B32B17/06 B32B27/08 B32B27/38 C08G59/00 C08J9/00 C08K5/00 C08L33/00 C08L63/00 C08L71/00 (Core/Invention)

International (IPC 1-7): B32B17/06 B32B17/10 B32B27/00 B32B27/04 B32B27/06 B32B27/08 B32B27/18 B32B27/26 B32B27/28 B32B27/30 B32B27/36 B32B27/38 B32B27/40 B32B31/04 B32B33/00 B64C1/40 C03C27/12 C07F7/18 C08G59/40 C08G59/50 C08G59/56 C08G59/62 C08G59/66 C08G59/68 C08G77/26 C08G81/00 C08K5/05 C08K5/37 C08K5/49 C08K5/51 C08K5/52 C08K5/54 C08K5/55 C08L63/00 C08L81/04 C08L83/04 F16L59/00

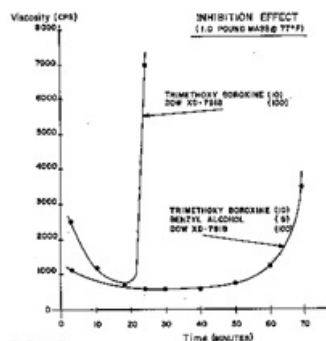
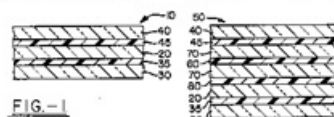
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US: 156/307.3 156/313 156/99 428/116 428/192 428/412 428/413 428/414 428/415 428/419 428/447 52/786.11 52/789 521/107 521/178 523/466 523/468 525/504 525/505 525/506 528/106 528/108 528/109 528/110 528/111 528/116 528/27 528/394 528/89 528/91 528/92

PatBase - US4294886_A

U.S. Patent Oct. 13, 1981 Sheet 1 of 3 4,294,886



Family:

Publication number	Publication date	Application number	Application date
AU198060907 A1	19810305	AU19800060907	19800730
AU198176190 A1	19820513	AU19810076190	19811009
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GB2058076 A1	19810408	GB19800024703	19800729
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GB2099433 A1	19821208	GB19820016935	19811023
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GB2107249 A1	19830427	GB19820027531	19820927
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IL66818 A1	19870130	IL19820066818	19820917

JP56036515 A2	19810409	JP19800118989	19800828
JP57108125 A2	19820706	JP19810178246	19811106
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US4294886 A	19811013	US19790070390	19790828
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Priority:

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Probable Assignee: PILKINGTON AEROSPACE INC

Assignee(s): (std): GOODYEAR TIRE AND RUBBER ; GOODYEAR AEROSPACE CORP

Assignee(s): GOOYEAR AEROSPACE CORP ; GOODYEAR TIRE AND RUBBER CO ; GOOYEAR AEROSPACE AKRON OH 44315 A CORP CORP ; GOODYEAR AEROSPACE AKRON OHIO 44315 A CORP OF DE CORP ; LORAL CORP ; SWEDLOW INC ; PILKINGTON AEROSPACE INC ; SWEDLOW INC A OF CA CORP ; URAM JOHN R JR ; GOODYEAR AEROSPACE A CORP OF DE CORP ; GOODYEAR AEROSPACE AKRON O USA CORP ; GOODYEAR AEROSPACE AKRON OHIO 44315 A CORP OF DE C

Inventor(s): (std): JOHN R URAM JR ; JOHN R URAM JR T ; JOHN RICHARD URAM ; JOHN RICHARD URAM JR ; JON RICHAAADO URAMU JUNIAA ; JON RICHAAADO YUURAMU JUNIAA ; JRN JOHN R URAM ; JIYON AARU YURAMU JIYUNIAA ; JIYON RICHIIYAADO URAMU JIYUNIA ; JIYON RICHIIYAADO URAMU JIYUNIAA ; JIYON RICHIIYAADO YUURAMU JIYUN ; JIYON RICHIIYAADO YUURAMU JIYUNIAA ; URAM JOHN R ; URAM JOHN R JR ; URAM JUN JOHN RICHARD ; URAM JR JOHN R ; URAM JOHN RICHARD JR ; URAM JOHN RICHARD ; URAM JR JOHN

Inventor(s): JOHN R JR URAM ; RICHARD URAM JUN

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; SMART AND BIGGAR; AE MULFORD

Title: FILM-REINFORCED GLASSES

Abstract: The present invention provides a film-reinforced glass, which has excellent impact resistance, penetration resistance and durability and which can be easily prepared. The constitution of the glass consists of one glass plate and a film comprising an organic polymer which is superposed thereon through a transparent adhesive layer, wherein the transparent adhesive layer comprises a first transparent adhesive layer of polyvinyl butyral and a second transparent adhesive layer of ethylene-vinyl acetate copolymer; or wherein a hard coat layer consisting of a cured layer formed from a curable resin containing fine particles of silica is provided on the surface of the organic polymer film on the side in noncontact with the transparent adhesive layer.

Classifications:

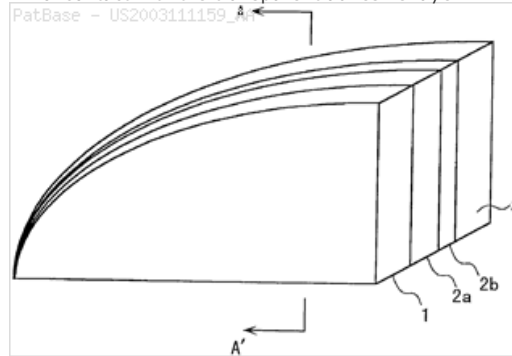
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International (ipc 1-7): B29C65/48 B29L31/00 B29L7/00 B29L9/00 B32B17/00 B32B17/10 B32B27/28 B32B27/30 B32B31/00 B60J1/00 C03C27/12 C08F255/02 C08J7/04 C08L67/02 C09J123/08 C09J131/04 C09J139/00 C09J4/06 C09J5/00 C09J7/02

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European: B32B17/10C2 B32B17/10G28 B32B17/10G36 B32B27/36 C03C17/34 C03C17/34B L32B367/00 L32B369/00 M03C217/445 M03C217/478

US: 156/106 156/106S 156/99 156/99P 428/331 428/332 428/412 428/437 428/442 428/451 428/483 428/501 428/522

**Family:**

Publication number	Publication date	Application number	Application date
AU2002222659 AA	20020701	AU20020222659	20011217
AU2002222659 A1	20020701	AU20020022659	20011217
AU2002222659 A5	20020701	AU20020022659	20011217
EP1346962 A1	20030924	EP20010271333	20011217
EP1346962 A4	20081231	EP20010271333	20011217
JP2002180019 A2	20020626	JP20000383929	20001218
JP2002187236 A2	20020702	JP20000387391	20001220
JP2002265238 A2	20020918	JP20010066280	20010309
US2003111159 AA	20030619	US20020203944	20020816
US7332216 BB	20080219	US20020203944	20020816
WO0249982 A1	20020627	WO2001JP11035	20011217
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Priority:

JP20000383929 20001218 JP20000387391 20001220 JP20010066280 20010309
WO2001JP11035 20011217

Probable Assignee: BRIDGESTONE CORP

Assignee(s): (std): BRIDGESTONE CORP ; HASHIMOTO MASAO ; OKADA TOKUO

Assignee(s): BRIDGESTONE CORPORATON

Inventor(s): (std): OKADA TOKUO ; HASHIMOTO MASAO

Inventor(s): MASAO HASHIMOTO ; TOKUO OKADA

Agent(s): SUGHRUE MION PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: GLASS PANEL FOR CRIME PREVENTION

Abstract: PROBLEM TO BE SOLVED: To provide a glass panel for crime prevention which is relatively inexpensive and has a high crime prevention effect. SOLUTION: This glass panel for crime prevention is constituted by joining tempered sheet glass 1 existing on an interior side I and a shock absorbing layer 2 existing on an outdoor side O to each other in thickness T1 and T2 directions of both.

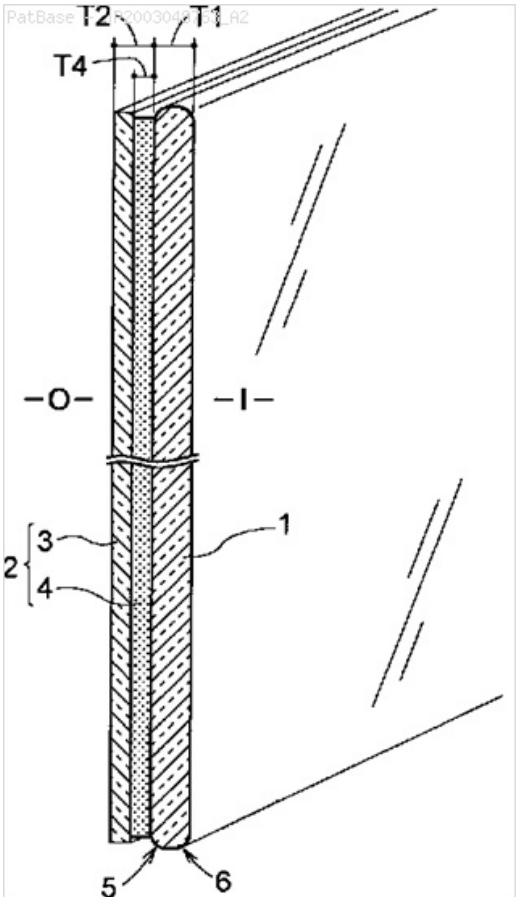
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International (IPC 1-7): B32B17/10 C03C27/12

CPC: B32B17/10137 B32B17/10155 B32B2369/00 B32B17/10018 B32B17/10761 B32B17/10788

European: B32B17/10C2 B32B17/10G28 B32B17/10G36



Family:

Publication number	Publication date	Application number	Application date
JP2003048763 A2	20030221	JP20010233425	20010801
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Priority:

JP20010233425 20010801

Probable Assignee:	NIPPON SHEET GLASS CO LTD
Assignee(s): (std):	NIPPON SHEET GLASS CO LTD
Assignee(s):	NIPPON SHEET GLASS COMPANY LIMITED
Inventor(s): (std):	OBANA SHIGEKI
Agent(s):	KITAMURA SHUICHIRO

Title: GLASS COVER FOR A VEHICLE ROOF AND PRODUCTION METHOD THEREFOR

Abstract: The invention relates to a glass cover (10) for a vehicle roof, comprising an at least partially transparent pane (14) of safety glass and optionally a support arrangement (18), which is mounted on the pane lower side in the pane edge area by means of a foam block (16) provided there. Said pane (14) is provided, on the lower side thereof, with a transparent composite film (26), which contains an adhesive film (28) and a tear- and scratch-resistant shatterproof film (30) as well as optionally embedded solar cells (62). According to the present invention, said shatterproof film (30) is bonded on the pane lower side by means of said adhesive film (28) in the center of the pane and incorporated into the foam block (16)

Classifications:

International (IPC 8-9): B29C44/12 B32B17/10 B32B27/08 B60J1/00

B60J10/12 B60J10/82 B60J7/00 B60J7/02 C03C17/34

H01L31/048 (Advanced/Invention);

B29C44/02 B32B17/06 B32B27/08 B60J1/00 B60J10/00 B60J7/00

B60J7/02 C03C17/34 H01L31/048 (Core/Invention)

International (IPC 1-7): B29C44/12 B60J1/00 B60J10/12 B60J7/00

B60J7/02 B60J7/043 B60J7/057 C03C17/34 H01L31/048

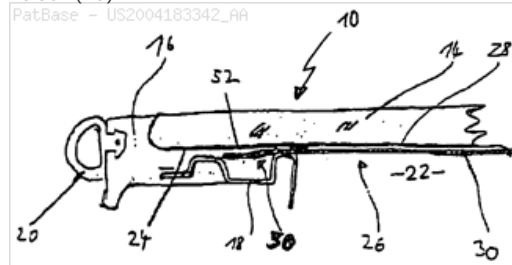
CPC: B32B17/1077 B32B17/10761 B32B17/10788 B32B2367/00

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European: B29C44/12D B32B17/10C2 B32B17/10G28 B32B17/10G30

B32B27/08 B60J10/12 L29C44/12G L32B367/00 Y02T10/88

US: 296/211 296/216.09 296/216.090P



Family:

Publication number	Publication date	Application number	Application date
DE10151156 A1	20030508	DE20011051156	20011019
DE20221210 U1	20050630	DE20022021210U	20021018
DE50202399 D1	20050407	DE20025002399	20021018
EP1436156 A2	20040714	EP20020782947	20021018
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JP2005508787 T2	20050407	JP20030543841T	20021018
JP4189538 B2	20081203	JP20030543841T	20021018
US2004183342 AA	20040923	US20040485711	20040204
US6942288 BB	20050913	US20040485711	20040204
WO03041980 A2	20030522	WO2002EP11654	20021018
WO03041980 A3	20031224	WO2002EP11654	20021018

Priority:

DE20011051156 20011019 DE20025002399 20021018 EP20020782947 20021018
WO2002EP11654 20021018

Probable Assignee: WEBASTO VEHICLE SYSTEMS INT GMBH

Assignee(s): (std): WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO FAHRZEUGTECHNIK AG ; WEBASTO SYSTEMKOMPONENTEN GMBH ; WEBASTO VEHICLE SYS INT GMBH ; PAETZ WERNER ; VILSMAYER SVEN

Assignee(s): WEBASTO AG ; JPMORGAN CHASE BANK ; WEBASTO VEHICLE SYSTEMS INT GMBH ; WEBASTO SYSTEMKOMPONENTEN GMBH AND CO KG ; WEBASTO VEHICLE SYSTEMS INTIONAL ; WEBASTO VEHICLE SYSTEMS INT ; WEBASTO VEHICLE SYSTEMS INTERNATIONAL GMBH

Inventor(s): (std): PAETZ WERNER ; VILSMAYER SVEN

Agent(s): NIXON PEABODY LLP; SAFRAN DAVID S; DAVID S

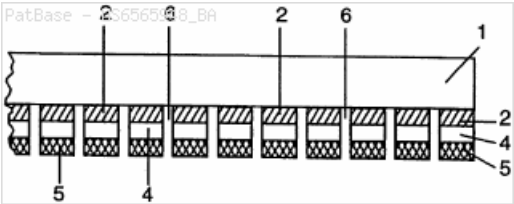
Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT JP LU MC NL PT SE SK TR US

Title: LAMINATED ORNAMENTAL GLASS

Abstract: A laminated ornamental glass suitable for indoor and outdoor use. The glass includes a first coating layer having a pattern of opaque regions applied to one side of the glass, a second coating layer having a pattern of white regions disposed on the pattern of opaque regions of the first coating layer, and a third oil ink coating layer with a pattern of black or grey regions disposed on the pattern of white regions of the second coating layer. The first, second and third coating layers leave transparent coating-free crevice portions between the regions thereof, wherein said coating layers permit visibility through said glass when viewed from one side of said glass, without reflection and virtual or static images, but not when viewed from an other side of said glass.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/08 B32B27/36 B32B3/10 B44C5/04 (Advanced/Invention); B32B17/06 B32B27/08 B32B27/36 B32B3/10 B44C5/00 (Core/Invention)
International (IPC 1-7): B32B27/14 B32B3/00
CPC: B44C5/0407 B32B3/10 B32B17/10018 B32B17/10247 B32B17/10733 B32B17/10743 B32B17/10761 B32B17/1077 B32B27/08 B32B27/36 Y10T428/24926
European: B32B17/10C2 B32B17/10E12 B32B17/10G22 B32B17/10G24 B32B17/10G28 B32B17/10G30 B32B27/08 B32B27/36 B32B3/10 B44C5/04C
US: 156/62 428/195 428/210 428/428



Family:

Publication number	Publication date	Application number	Application date
US6565948 BA	20030520	US19950538174	19950823

Priority:

US19940237650 19940504 US19950538174 19950823

Probable Assignee: LIN CHII HSIUNG

Assignee(s): (std): LIN CHII HSIUNG

Inventor(s): (std): LIN CHII HSIUNG

Title: BULLET-RESISTANT TRANSPARENT PANEL, AND METHOD AND PRESS FOR MAKING SAME

Abstract: A transparent panel having unidirectional bullet-resisting characteristics, comprises an outer transparent panel of an acrylic resin; an inner transparent sheet of a polycarbonate resin; and a transparent adhesive bonding the two sheets together. Also described are a method of making such a panel, and presses useful in making such a panel.

Classifications:

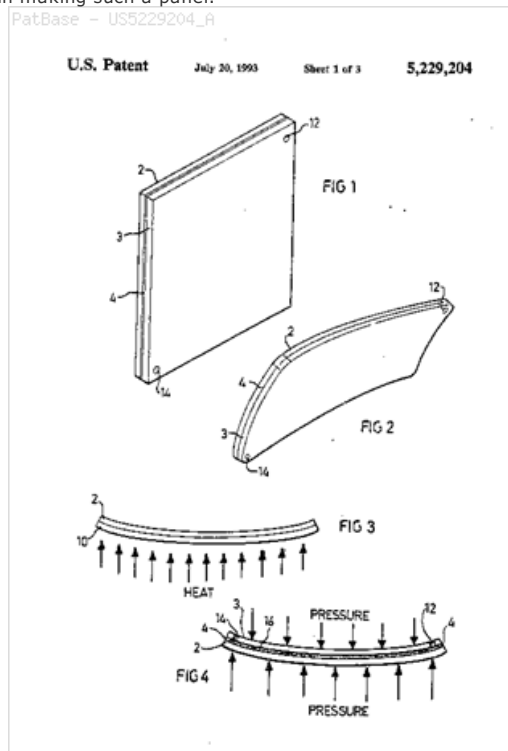
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International (IPC 1-7): B29C39/12 B29C65/48 B29C65/54 B29K33/00 B29K69/00 B29L9/00 B30B B30B1/32 B30B11/00 B30B12/00 B30B15/06 B30B5/00 B32B17/00 B32B17/10 B32B27/00 B32B27/08 B32B27/28 B32B27/30 B32B27/36 B32B31/00 B32B31/06 B32B31/20 B32B31/30 B32B33/00 B32B35/00 B32B7/02 B32B7/12 D06M17/00 E04B2/02 E04C2/20 E04C2/54 E05G7/00 E06B5/10 F41H F41H5/00 F41H5/04 F41H5/26

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European: B32B17/10C2 B32B17/10C6 B32B17/10G28 B32B17/10G30 B32B17/10L10 B32B17/10L14 B32B27/08 F41H5/04B L32B333/00 L32B369/00

US: 109/10 109/49.5 109/80 156/104 264/261 264/263 428/335 428/412 428/424.4 428/911



Family:

Publication number	Publication date	Application number	Application date
AR247293 A1	19941130	AR19930324365	19930223
AT172149 E	19981015	AT19920304921T	19920529
AU199337351 A1	19930913	AU19930037351	19930226
AU672783 B2	19961017	AU19930037351	19930226
BRPI9103301 A	19920623	BR1991PI03301	19910801
CA2131011 AA	19940826	CA19932131011	19930226
CN1077416 A	19931020	CN19931002892	19930227
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EP0557636 A1	19930901	EP19920304921	19920529
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EP0627988 A4	19950208	EP19930906252	19930226
IE922553 A1	19930908	IE19920002553	19920731
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JP7507383 T2	19950810	JP19950515093T	19930226
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RU94045985 A	19961210	RU19940045985	19940826
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TH15607 A	19950224	TH19931000325	19930226
TR27217 A	19941209	TR19930000239	19930226
US5229204 A	19930720	US19920843337	19920228
US5372771 A	19941213	US19930092368	19930716
US5747159 A	19980505	US19940295715	19941114
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WO9316872 A1	19930902	WO1993US01757	19930226
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Priority:

IL19900096364 19901116 US19920843337 19920228 IL19920102466 19920710
 WO1993US01757 19930226 US19930092368 19930716 US19940295715 19941114

Probable Assignee: ARMORVISION PLASTICS AND GLASS

Assignee(s): (std): ARMORVISION PLASTICS AND GLASS ; ARMORVIZHN PLASTIKS EHND GLASS ; ARMOVISION PLASTICS and GLASS ; JOSEPH LABOCK ; SHOTGLASS A V V ; LABOCK JOSEPH ; M R M INTERNATIONAL INC ; M R M INT INC ; A D Y LABOCK COATING LTD

Assignee(s): ADY LABOCK COATING LTD ; SHOT GLASS ; SHOTGLASS VENTURES LP ; SHOTGLASS A V V ORANJESTAD ARUBA AN ; MRM INT INC ; SHOTGLASS AVV

Inventor(s): (std): DZHOZEF LEHBOK ; JOSEPH LABOCK ; LABOCK JOSEPH

Inventor(s): LABOCK JOSEPH 59491 BAT YAM IL

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; RICHES MCKENZIE AND HERBERT LLP; SANFORD TCOLB AND CO; GE EHRLICH 1995 LTD

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR LI LK LU MC MG ML MN MR MW NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US

Title: DIGITAL COLOR-DESIGN COMPOSITE FOR USE IN LAMINATED GLASS

Abstract: This invention is directed to a plastic composite comprising color images printed onto a polyethylene terephthalate (PET) substrate using digital printing technology. The PET layer is then bonded to a second PET layer using a thermally activated adhesive, preferably ethylene vinyl acetate copolymer (EVA). The bonded PET layers are then disposed between two layers of plasticized PVB, forming the plastic composite. The plastic composite can then be placed between two sheets of glass forming the final laminated glass product.

Classifications:

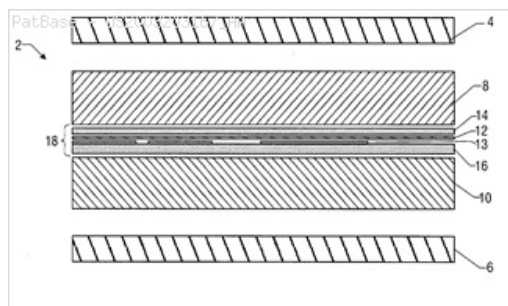
International (IPC 8-9): B32B17/00 B32B17/10 B32B18/00 B32B27/36 B32B9/00 B41M7/00 C03C27/12 C09J11/06 C09J123/08 C09J129/14 C09J131/04 C09J201/00 C09J5/02 (Advanced/Invention); B32B17/00 B32B17/06 B32B18/00 B32B27/36 B32B9/00 B41M7/00 C03C27/12 C09J11/02 C09J123/00 C09J129/00 C09J131/00 C09J201/00 C09J5/02 (Core/Invention)

International (IPC 1-7): B32B17/00 B32B17/06 B32B17/10 B32B27/00 B32B27/04 B32B27/36 B32B7/12 B32B9/00 B41M7/00 C03C27/12 C09J11/06 C09J123/08 C09J129/14 C09J131/04 C09J201/00 C09J5/02

CPC: B32B17/10577 B32B17/10018 B32B17/10284 B32B17/10339 B32B17/10935 B32B17/10981 B32B27/36 Y10T428/24802 Y10T428/2495 Y10T428/264 Y10T428/28 Y10T428/2813 Y10T428/2848 Y10T428/2874 B32B17/10 B32B17/10036 B32B17/10275 B32B17/10761 B32B17/10788 B32B17/1077 Y10T428/24926 Y10T428/2891 B32B17/10247 Y10T428/31616 Y10T428/31623 Y10T428/31627 Y10T428/3163 Y10T428/31645 Y10T428/31725 Y10T428/31786 B32B17/10688 B32B2367/00

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US: 428/13 428/195.1 428/195.100P 428/210 428/210P 428/213 428/220 428/29 428/335 428/335AC 428/343 428/346 428/354 428/355.OAC 428/355.OAK 428/355AC 428/426 428/426P 428/428 428/43 428/430 428/430S 428/435 428/436 428/437 428/441 428/474.4 428/480 428/542.2



Family:

Publication number	Publication date	Application number	Application date
AT406259 E	20080915	AT20030726514T	20030428
AU2003228745 AA	20031117	AU20030228745	20030428
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BRPI0309749 A	20050215	BR2003PI09749	20030428
CA2483411 AA	20041025	CA20032483411	20030428
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CN1665680 A	20050907	CN20038015584	20030428
DE60323219 D1	20081009	DE20036023219	20030428
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EP1499494 B1	20080827	EP20030726514	20030428
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PL373321 A1	20050822	PL20030373321	20030428
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RU2297330 C2	20070420	RU20040134734	20030428
TH64403 A	20040930	TH20031001629	20030429
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US2003203214 AA	20031030	US20020135417	20020430
US2006078716 AA	20060413	US20050193885	20050729
US6824868 BB	20041130	US20020135417	20020430
US7727634 BB	20100601	US20050193885	20050729
WO03092999 A1	20031113	WO2003US13236	20030428
ZA200408716 A	20050830	ZA20040008716	20041027

Priority:

US20020135417 20020430 WO2003US13236 20030428 US20030443541 20030522
KR20047017500 20041029 US20050193885 20050729

Probable Assignee: SOLUTIA INC

Assignee(s): (std): SOLUTIA INC ; YACOVONE VINCENT J ; SOLJUTIA INK

Assignee(s): SOLUTIA SYSTEMS INC ; ABLECO FINANCE LLC ; ABLECO FINANCE LLC AS COLLATERAL AGENT ; ABLECO FINANCE LLC COLLATERAL AGENT AS ; BELL WILLIAM PAUL ; CITIBANK NA ; CPFILMS INC ; MONCHEM INC ; MONCHEM INT ; FLEXSYS AMERICA LP ; DEUTSCHE BANK TRUST CO ; DEUTSCHE BANK TRUST CO AMERICAS COLLATERAL AGENT A ; MONCHEM INT INC ; MORAN JAMES R ; DEUTSCHE BANK TRUST CO AMERICAS COLLATERAL AGENT AS ; SOL LOU TIA INN KO PO RAY LTD

Inventor(s): (std): BELL WILLIAM P ; BELL WILLIAM PAUL ; JAKOVONE VINCENT DZH ; BELL UILL JAM POL ; JAMES R MORAN ; MORAN DZHEJMS R ; MORAN JAMES R ; PAUL BELL WILLIAM ; VINCENT J YACOVONE ; WILLIAM PAUL BELL ; YACOVONE VINCENT J ; YACOVONE VINCET J ; YACOVONE VINCENT ; MORAN JAMES ; BELL WILLIAM

Inventor(s): BELL UILL'JAM POL

Agent(s): BALDWIN'S INTELLECTUAL PROPERTY; NELLIGAN O BRIEN PAYNE LLP; ALBRECHT THOMAS ET AL; HITOSHIO AKIO; TSUBOKURA MICHIAKI; ONO MAKOTO; OSAKI KATSUMASA; KAWAGUCHI YOSHIO; HOWREY LLP;

DOWELL AND DOWELL PC; ROBERT J; JOHN P

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM
DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI
LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PH PL PT RO RU SC SD SE
SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Title: GLASS COVER WITH SHATTERPROOFING FILM

Abstract: A glass cover (10) for closing the opening of a motor vehicle roof, with a pane (14) of safety glass which is at least partially transparent has an at least partially transparent shatterproofing film (30) attached to the bottom of the pane or to the bottom of a solar cell composite (60, 62) which is located on the bottom of the pane, and the shatterproofing film having a defined surface structure which is not flat.

Classifications:

International (IPC 8-9): B32B17/10 B60J1/00 B60J7/00 B60J7/04 B60J7/043 H01L31/042 (Advanced/Invention);

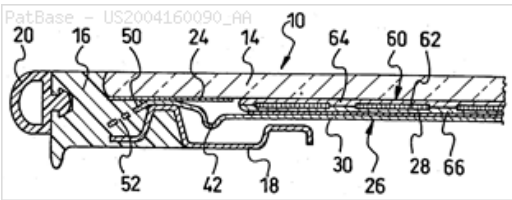
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European: B32B17/10C2 B32B17/10E12 B32B17/10E16 B32B17/10G28 B32B17/10G30 B32B17/10G36 B60J7/00 B60J7/04 B60J7/043 L32B367/00 Y02T10/88

US: 296/211 296/211P 296/215 296/216.09



Family:

Publication number	Publication date	Application number	Application date
DE10206717 A1	20030828	DE20021006717	20020218
DE10206717 B4	20140313	DE20021006717	20020218
DE20221201 U1	20050609	DE20022021201U	20020218
DE50308749 D1	20080124	DE20035008749	20030217
EP1336520 A1	20030820	EP20030003593	20030217
EP1336520 B1	20071212	EP20030003593	20030217
EP1336520 B2	20141105	EP20030003593	20030217
US2004160090 AA	20040819	US20030367962	20030219
US6908147 BB	20050621	US20030367962	20030219

Priority:

DE20021006717 20020218 DE20022021201U 20020218 DE20035008749 20030217

Probable Assignee: WEBASTO VEHICLE SYSTEMS INT GMBH

Assignee(s): (std): WEBASTO AG ; WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO SYSTEMKOMPONENTEN GMBH ; WEBASTO VEHICLE SYS INT GMBH ; WEBASTO FAHRZEUGTECHNIK AG

Assignee(s): WEBASTO VEHICLE SYSTEMS INT GMBH ; WEBASTO VEHICLE SYSTEMS INTIONAL ; WEBASTO VEHICLE SYSTEMS INT ; WEBASTO VEHICLE SYSTEMS INTERNATIONAL GMBH ; WEBASTO SYSTEMKOMPONENTEN GMBH AND CO KG

Inventor(s): (std): TESCHNER HELMUT

Agent(s): SCHWAN IVO; NIXON PEABODY LLP; SAFRAN DAVID S; DAVID S

Designated states: DE FR GB NL

Title: PROCESS FOR PRODUCING A COVER WITH A GLASS PANE AND ELECTRICAL FUNCTION ELEMENTS

Abstract: A process for producing a cover (11) with a glass pane (14) for a motor vehicle roof, in which, first, a combination film (10) with a shatter prevention film and electrical function elements (22, 24, 26, 28, 30) integrated into the combination film is produced, and then, the combination film is securely attached to a side of the pane, e.g., the side facing the vehicle interior. Furthermore the invention relates to a cover for a motor vehicle roof produced in this manner.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/36 B60J10/12 B60J10/82 B60J3/04 B60J7/00 B60J7/043 B60Q3/02 B62D25/06 F21K2/00 G02F1/17 H01H13/702 H01L31/048 H01L31/18 H05B33/12

H05K3/30 (Advanced/Invention);

F21Y105/00 (Advanced/Non-invention);

B32B17/06 B32B27/36 B60J10/00 B60J7/00 H01L31/048

H05K3/30 (Core/Invention)

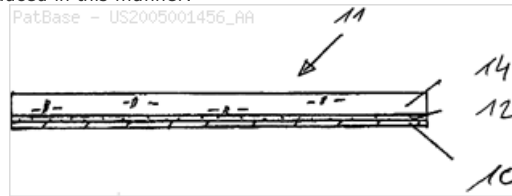
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B32B27/36 B32B2367/00 B32B2369/00 Y02E10/50 B60J7/04 H01L31/048 Y02T10/90 B32B2037/1215 B32B2605/00

European: B32B17/10C2 B32B17/10E40D6 B32B17/10G28 B32B17/10G30 B32B17/10L12 B32B27/36 B60J7/00 H01L31/048 L32B367/00 L32B369/00 Y02E10/50

US: 136/251 29/832 29/846 29/897.2 296/215 296/215P 296/216.01 296/216.010P 296/216.09



Family:

Publication number	Publication date	Application number	Application date
DE10329643 A1	20050127	DE20031029643	20030701
DE10329643 B4	20160811	DE20031029643	20030701
DE20320919 U1	20050609	DE20032020919U	20030701
EP1493557 A1	20050105	EP20040015318	20040630
US2005001456 AA	20050106	US20040880096	20040630
US2008150327 AA	20080626	US20080041103	20080303
US7360306 BB	20080422	US20040880096	20040630

Priority:

DE20031029643 20030701 DE20032020919U 20030701 US20040880096 20040630
US20080041103 20080303

Probable Assignee: WEBASTO AG

Assignee(s): (std): WEBASTO AG ; WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO FAHRZEUGTECHNIK AG

Inventor(s): (std): BOEHM HUBERT ; BOHM HUBERT ; ERBECK GERIT

Agent(s): NIXON PEABODY LLP; ROBERTS MLOTKOWSKI AND HOBBS; SAFRAN DAVID S; DAVID S

Designated states: DE FR GB NL

Title: MAR-RESISTANT OLIGOMERIC-BASED COATINGS FOR GLASS-PLASTIC GLAZING PRODUCTS

Abstract: This invention is glass laminate article comprising a mar-resistant clearcoat. A laminate of the present invention resists scratches, and is easily repairable and even self-healable at temperatures above about 40 degrees centigrade

Classifications:

International (ipc 8-9): B29C73/00 B32B17/10 B32B27/08 B32B27/30 B32B27/36 B32B27/40 B32B37/00 B32B43/00 C03C27/12 C08G18/28 C08G18/42 C08G18/79 C08J5/12 C08J7/04 C09D163/00 C09D175/04 C09D5/00 (Advanced/Invention)

International (ipc 1-7): B32B17/10 B32B27/08 B32B27/36 B32B31/00 C08J5/12 C08J7/04 C09D163/00 C09D175/04

CPC: Y10T428/1414 Y10T428/24926 B32B17/1033 B32B17/10743 B32B17/10788 C08G18/4261 C08G18/792 C08J7/047 C08J2463/00 C08J2475/00 C09D163/00 C09D175/04 Y10T428/31551 Y10T428/31565 Y10T428/31601 Y10T428/31616 Y10T428/3163 Y10T428/31649 Y10T428/31786 Y10T428/31935 Y10T428/31942 B32B17/10779 B32B2307/584 B32B2307/762 B32B17/10761 B32B17/10807 B32B27/36 B32B2329/06 B32B27/08 B32B17/10018 B32B2367/00

European: B32B17/10C2 B32B17/10E22 B32B17/10G24 B32B17/10G28 B32B17/10G36 B32B17/10L B32B27/08 B32B27/36 C08G18/42D8 C08G18/79D4 C08J7/04L C09D163/00 C09D175/04 L32B367/00 M08J463/00 M08J475/00

US: 156/106 156/106S 156/278 156/94 156/94P 156/99 156/99S 428/21 428/210 428/210S 428/40.4 428/40.400S 428/423.1 428/423.100P 428/423.7 428/425.6 428/430 428/430S 428/437 428/442 428/480 428/480S 428/522 428/522S 428/524 428/524S

Family:

Publication number	Publication date	Application number	Application date
AU2004280342 AA	20050421	AU20040280342	20040827
CA2537030 AA	20060224	CA20042537030	20040827
CN1878669 A	20061213	CN200480032753	20040827
EP1660322 A2	20060531	EP20040809639	20040827
JP2007504024 T2	20070301	JP20060525376T	20040827
MXPA06002151 A1	20060427	MX2006PA02151	20040827
US2005077002 AA	20050414	US20040925842	20040825
US2007144654 AA	20070628	US20070709629	20070222
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US2007160852 AA	20070712	US20070709579	20070222
US7294401 BB	20071113	US20040925842	20040825
US7435481 BB	20081014	US20070709640	20070222
WO05035241 A2	20050421	WO2004US28132	20040827
WO05035241 A3	20050623	WO2004US28132	20040827

Priority:

US20030499949P	20030902	US20040925842	20040825	WO2004US28132	20040827
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Probable Assignee: E I DU PONT DE NEMOURS AND CO

Assignee(s): (std): ANDERSON JERREL C ; BARSOTTI ROBERT ; BARSOTTI ROBERT J ; DU PONT ; E I DU PONT DE NEMOURS AND COMPANY ; E I DUPONT DE NEMOURS AND COMPANY ; EIDU PONT DE NEMOURS AND CO

Assignee(s): E I DU PONT DE NEMOURS AND CO ; EI DUPONT DE NEMOURS AND CO ; EI DU PONT DE NEMOURS AND CO

Inventor(s): (std): ANDERSON JERREL C ; ANDERSON JERREL C BARSOTTI ROB ; BARSOTTI ROBERT ; BARSOTTI ROBERT J ; JERREL C ANDERSON ; ROBERT BARSOTTI ; BARSOTTI ROBERT JOHN

Inventor(s): ANDERSON JERREL

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; TORYS LLP; ABE KAZUO; TANI YOSHIKAZU; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER; DOBSON KEVIN S; KULLER MARK D; MARK D; KEVIN S

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: ONE WAY BULLET-RESISTANT TRANSPARENT PANEL MEETING NIJ LEVEL III STANDARDS AND ARMOR PIERCING BULLET-RESISTANT TRANSPARENT PANEL

Abstract: Transparent panels having unidirectional bullet-resisting characteristics contain at least one sheet of glass, several intermediate sheets formed of an acrylic resin or further glass sheets, and an inner sheet formed of a polycarbonate resin. A transparent adhesive bonds the sheets to each other to form the panel. The level of bullet resistance capability is measured according to NIJ standards and the panels have a Level III or Level IV rating.

Classifications:

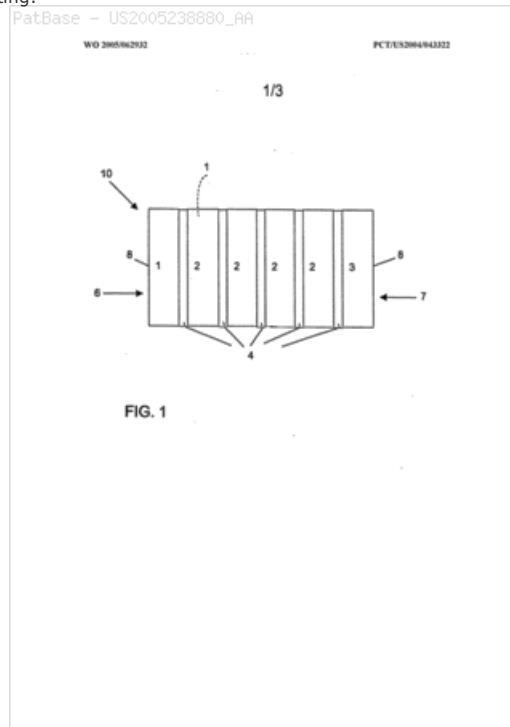
International (IPC 8-9): B32B17/06 B32B17/10 B32B27/30 B32B27/32 B32B27/36 B32B27/40 B32B7/02 B32B7/12 (Advanced/Invention); B32B17/06 B32B27/30 B32B27/36 B32B7/02 (Core/Invention)

International (IPC 1-7): B32B17/10 B32B27/32 B32B27/36 B32B27/38 B32B7/02

CPC: B32B17/10045 B32B7/12 B32B17/10761 B32B17/10779 B32B27/08 B32B27/308 B32B27/365 B32B2255/10 B32B2307/536 B32B2307/584 B32B2307/718 B32B2571/02 F41H5/0407 Y10T428/24942 B32B17/1077 B32B27/30 B32B27/36 Y10T428/31507 Y10T428/31515 Y10T428/31518 Y10T428/31551 B32B17/10018 B32B2307/412 B32B2369/00 B32B2571/00

European: B32B17/10C2 B32B17/10C4B B32B17/10G28 B32B17/10G30 B32B17/10G32 B32B27/08 B32B27/30 B32B27/30D B32B27/36 B32B27/36A B32B7/12 F41H5/04B L32B255/10 L32B307/536 L32B307/584 L32B307/718 L32B571/02

US: 428/212 428/220 428/412 428/412P 428/414 428/415 428/423.1 428/426 52/786.1 52/786.11



Family:

Publication number	Publication date	Application number	Application date
US2005238880 AA	20051027	US20050047748	20050201
US7318956 BB	20080115	US20050047748	20050201
WO05062932 A2	20050714	WO2004US43322	20041223
WO05062932 A3	20060406	WO2004US43322	20041223
WO06073478 A2	20060713	WO2005US18449	20050525
WO06073478 A3	20061207	WO2005US18449	20050525

Priority:

US20030745196 20031223 US20040854130 20040525 US20050047748 20050201

Probable Assignee: ARMOUR GROUP INC

Assignee(s): (std): LABOCK TECHNOLOGIES INC ; LABOCK YOSEF

Assignee(s): STRIKE ONE LLC ; ADVANCED BLAST PROTECTION INC ; ARMOUR GROUP INC ; FRENKEL LEON ; JOSEPH GUNNAR AND CO ; JOSEPH GUNNAR AND CO LLC

Inventor(s): (std): LABOCK YOSEF

Agent(s): LERNER AND GREENBERG PA; GREENBERG LAURENCE A; STEMER WERNER H; LOCHER RALPH E; WERNER H; RALPH E; LAURENCE A

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: METHODS FOR LAMINATING FILMS FOR SPD LIGHT VALVES AND SPD LIGHT VALVES INCORPORATING SUCH LAMINATED FILMS

Abstract: The invention is directed to a method for laminating a suspended particle device (SPD) film which comprises forming a suspended particle device film; positioning the suspended particle device film within an unlaminated stack of components for forming a laminated suspended particle device film, wherein the stack comprises at least one hot melt adhesive sheet or film contacting an outer surface of the suspended particle device film; subjecting the unlaminated stack to at least a partial vacuum, preheating the unlaminated stack of components under the vacuum for a time and at a temperature selected to permit at least partial degassing of the stack and applying a sufficient net pressure to the stack at a sufficient temperature and for a sufficient time to produce a laminated suspended particle device film from the unlaminated stack.

Classifications:

International (IPC 8-9): B29C65/00 B29C65/40 B32B17/10 B32B27/00 B32B27/04 B32B37/10 C09J7/02 G02F1/17 (Advanced/Invention); B29K67/00 B29K69/00 B29L9/00 B32B27/04 B32B37/10 C09J7/02 (Advanced/Non-invention)

International (IPC 1-7): B32B27/00

CPC: B32B17/10064 B32B17/10 B32B17/10036 B32B17/10174 B32B17/10532 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10816 B32B17/10825 B32B2367/00 B32B2369/00 G02F1/172 G02F2202/022 G02F2202/023 Y10T428/25 Y10T428/31504

European: B32B17/10 B32B17/10C4 B32B17/10C6 B32B17/10E10 B32B17/10E40D68 B32B17/10G28 B32B17/10G30 B32B17/10G36 B32B17/10L10 B32B17/10L10B L32B367/00 L32B369/00 S02F1/17A S02F202/02B S02F202/02B2

US: 156/104 156/105 156/106 156/285 156/286 156/286S 428/323 428/323P 428/411.1 428/411.100S

PatBase - KR20070007164_A

(39)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

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(43) Date of publication of application: **12.01.2007**

(21) Application number: **1020067022380** (71) Applicant: **RESEARCH FRONTIERS INCORPORATED**
(22) Date of filing: **26.10.2006** (72) Inventor: **SLOVAK STEVEN M. CHAKRAPANI SRINIVASAN SAXE ROBERT L.**
(31) Priority: **2004 562329 US 13.04.2004**
(51) Int. Cl.: **B32B 27/04 (2006.01); B32B 37/10 (2006.01)**

(54) **METHODS FOR LAMINATING FILMS FOR SPD LIGHT VALVES AND SPD LIGHT VALVES INCORPORATING SUCH LAMINATED FILMS**

(57) Abstract:
The invention is directed to a method for laminating a suspended particle device (SPD) film which comprises forming a suspended particle device film; positioning the suspended particle device film within an unlaminated stack of components for forming a laminated suspended particle device film, wherein the stack comprises at least one hot melt adhesive sheet or film contacting an outer surface of the suspended particle device film; subjecting the unlaminated stack to at least a partial vacuum, preheating the unlaminated stack of components under the vacuum for a time and at a temperature selected to permit at least partial degassing of the stack and applying a sufficient net pressure to the stack at a sufficient temperature and for a sufficient time to produce a laminated suspended particle device film from the unlaminated stack.
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Family:

Publication number	Publication date	Application number	Application date
AU2004318735 AA	20051103	AU20040318735	20040723
AU2004318735 BB	20090730	AU20040318735	20040723
CA2563303 AA	20061004	CA20042563303	20040723
CA2563303 C	20120515	CA20042563303	20040723
EP1735156 A2	20061227	EP20040779006	20040723
EP1735156 A4	20111026	EP20040779006	20040723
EP1735156 B1	20160720	EP20040779006	20040723
ES2598406 T3	20170127	ES20040779006T	20040723
JP2007533490 T2	20071122	JP20070508320T	20040723
JP2011189751 A2	20110929	JP20110137559	20110621
JP5173408 B2	20130403	JP20070508320T	20040723
KR101113919 B1	20120229	KR20067022380	20040723
KR20070007164 A	20070112	KR20067022380	20040723
PL1735156 T3	20170131	PL20040779006T	20040723
US2005227061 AA	20051013	US20040898303	20040723
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WO05102688 A2	20051103	WO2004US23747	20040723
WO05102688 A3	20060629	WO2004US23747	20040723

Priority:

US20040562329P 20040413 US20040562329P 20040413 EP20040779006 20040723
JP20070508320 20040723 US20040898303 20040723 WO2004US23747 20040723

Probable Assignee: RESEARCH FRONTIERS INC

Assignee(s): (std): CHAKRAPANI SRINIVASAN ; RES FRONTIERS INC ; RESEARCH FRONTIERS INC ; SAXE ROBERT L ; SLOVAK STEVEN M

Inventor(s): (std): SAXE ROBERT ; SLOVAK STEVEN ; SLOVAK STEVEN M ; SAXE ROBERT L ; CHAKRAPANI SRINIVASAN

Inventor(s): ROBERT L SAXE ; SRINIVASAN CHAKRAPANI ; STEVEN M SLOVAK

Agent(s): PHILLIPS ORMONDE FITZPATRICK; OSLER HOSKIN AND HARCOURT LLP; WALCHER ARMIN; CARPINTERO MARIO; OSTROLENK FABER GERB AND SOFFEN; OSTROLENK FABER GERB AND SOFFEN LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU

SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: METHOD FOR PRODUCTION OF A CURVED SCREEN ARRANGEMENT FOR VEHICLE

Abstract: The invention relates to a method for production of a curved screen arrangement for a vehicle, whereby a plastic film (22) is applied to a curved glass plate (18) by means of a die (24) to form a film composite (26). The film composite is subsequently subjected to a thermal treatment at a pressure below that of atmospheric pressure in order to laminate the plastic film to the screen. The plastic film is embodied as a cover film and an adhesive layer is applied between the cover film and the screen in order to form the film composite and to fix the cover film to the screen. According to the invention, before the reduction in pressure, a flexible spacer (30) is placed in a region of the plastic layer (22) with no adhesive layer (20) between the cover film and the screen (18) in order to promote the removal of air from between the die (24) and the cover film, whereby the cover film has a boundary region (38) with perforations (40) running to the middle (42) of the cover film (40) and which at least partly rests on the spacer. After lamination the boundary region provided with perforations is separated and removed along the perforations.

Classifications:

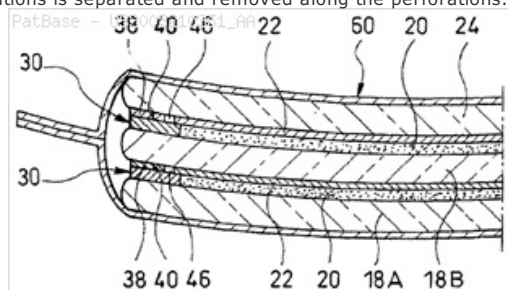
International (IPC 8-9): B29C37/00 B29C43/36 B29C65/40 B29D99/00 B32B17/00 B32B17/10 B32B27/30 B32B27/36 B32B37/00 B32B37/10 B60J1/00 B60J7/043 B62D25/06 C03C27/12 (Advanced/Invention); B29C37/00 B60J7/043 B62D25/06 (Advanced/Non-invention); B29C37/00 B29C43/36 B29C65/40 B29D99/00 B32B17/00 B32B17/06 B32B27/30 B32B27/36 B32B37/00 B32B37/10 B60J1/00 B60J7/04 B62D25/06 C03C27/12 (Core/Invention); B29C37/00 B60J7/04 B62D25/06 (Core/Non-invention)

CPC: B32B37/003 B29C43/12 B29C2043/3644 B29C2043/3647 B29K2709/08 B29L2031/3041 B32B17/10018 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/1088 B32B17/10889 B32B17/10972 B32B27/30 B32B37/1018 B32B38/1866 B32B2367/00 B60J3/007

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US: 156/102

**Family:**

Publication number	Publication date	Application number	Application date
■ CN101189127 A	20080528	CN200680019266	20060530
■ DE102005024857 B3	20061116	DE200510024857	20050531
■ EP1888326 A2	20080220	EP20060753208	20060530
■ JP2008542068 T2	20081127	JP20080513917T	20060530
■ KR20080021029 A	20080306	KR20077029324	20060530
■ US2008210361 AA	20080904	US20060913227	20060530
■ WO06128430 A2	20061207	WO2006DE000924	20060530
■ WO06128430 A3	20070405	WO2006DE000924	20060530

Priority:

DE200510024857 20050531 WO2006DE000924 20060530 WO2006DE000924 20060530

Probable Assignee: WEBASTO FAHRZEUGTECHNIK AG

Assignee(s): (std): BOEHM HUBERT ; BOHM HUBERT ; POMARO MAURO ; WEBASTO AG ; WEBASTO AG FAHRZEUGTECHNIK ; WEBASTO FAHRZEUGTECHNIK AG

Assignee(s): WEBASTO SE

Inventor(s): (std): BOEHM HUBERT ; BOHM HUBERT ; POMARO MAURO ; MAURO POMARO ; HUBERT BOHM

Agent(s): DICKINSON WRIGHT PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: HIGH STRENGTH MULTILAYER LAMINATES COMPRISING TWISTED NEMATIC LIQUID CRYSTALS

Abstract: Provided are multilayer laminates having one or more layers comprising twisted nematic liquid crystals and one or more layers of a polymeric sheet comprising a polymer with a modulus between 20,000 psi (138 MPa) and 100,000 psi (690 MPa). The twisted nematic liquid crystal layers reflect infrared radiation. Thus, the multilayer laminates are useful to reduce the transmission of infrared energy. For example, in some embodiments the multilayer laminates are useful as windows to reduce energy consumption necessary to cool the interior of a structure such as an automobile or building. Preferably, the multilayer laminates retain the beneficial properties of safety glass. The multilayer laminates may include additional layers such as infrared absorbing layers, half wave plates, and the like, to minimize the transmission of infrared energy. The multilayer laminates may also include further additional layers such as polymeric films, polymeric sheets, rigid sheets, and the like.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B23/04 B32B27/08 B32B27/20 B32B27/30 B32B27/32 B32B27/36 B32B37/06 B32B37/24 B32B5/16 B32B7/00 B32B7/02 C03C27/12 C09K19/02 C09K19/38 G02B5/30 (Advanced/Invention); B32B17/06 B32B23/00 B32B27/08 B32B27/20 B32B27/30 B32B27/32 B32B27/36 B32B5/16 B32B7/00 B32B7/02 C03C27/12 C09K19/02 C09K19/38 G02B5/30 (Core/Invention)

CPC: B32B17/10 B32B17/10825 C09K19/0208 C09K19/3838 G02B5/305 G02F1/13718 Y10T156/10 Y10T428/10 Y10T428/1036 Y10T428/1041 Y10T428/1045 Y10T428/105 Y10T428/1059 Y10T428/1068 Y10T428/1073 Y10T428/1082 Y10T428/1086 Y10T428/1095 Y10T428/24942 Y10T428/25 Y10T428/31504 Y10T428/31507 Y10T428/31511 Y10T428/31515 Y10T428/31518 Y10T428/31525 Y10T428/31612 Y10T428/31616 Y10T428/31634 Y10T428/31638 Y10T428/31645 Y10T428/31649 Y10T428/31663 Y10T428/31667 Y10T428/31786 Y10T428/31797 Y10T428/31855 Y10T428/31909 Y10T428/31935 Y10T428/31938 B32B7/12 B32B2305/55 B32B2307/416 B32B2307/42 B32B2307/518 B32B17/10018 B32B17/10036 B32B17/10458 B32B17/10577 B32B17/10743 B32B17/10761 B32B17/10788 B32B17/10853 B32B17/10862 B32B27/08 B32B27/36

European: B32B17/10 B32B17/10C2 B32B17/10C4 B32B17/10E40D62 B32B17/10G24 B32B17/10G28 B32B17/10G2D B32B17/10G36 B32B17/10L10B B32B17/10L10B2B2 B32B17/10L10B4 B32B27/08 B32B27/36 C09K19/02A C09K19/38B2 G02B5/30P1S1 G02F1/137C

US: 156/242 156/242S 156/244.27 156/244.270P 156/275.5 156/275.500S 156/60 156/60S 252/299.01 252/582 252/587 359/350 428/1.1 428/1.3 428/1.31 428/1.32 428/1.33 428/1.5 428/1.52 428/1.53 428/1.55 428/1.6 428/1.62 428/212 428/323 428/323P 428/411.1 428/411.100S 428/412 428/412S 428/413 428/414 428/415 428/417 428/426 428/426S 428/429 428/430 428/438 428/439 428/441 428/442 428/447 428/447S 428/449 428/451 428/480 428/480S 428/483 428/500 428/500S 428/515 428/522 428/522S 428/523 428/523S

Family:

Publication number	Publication date	Application number	Application date
AU2006249382 AA	20061130	AU20060249382	20060526
CN101184617 A	20080521	CN200680018271	20060526
EP1904301 A2	20080402	EP20060771425	20060526
JP2008545556 T2	20081218	JP20080513799T	20060526
US2007116945 AA	20070524	US20060441906	20060526
US2010263790 AA	20101021	US20100828438	20100701
US7749577 BB	20100706	US20060441906	20060526
WO06128090 A2	20061130	WO2006US20654	20060526
WO06128090 A3	20070329	WO2006US20654	20060526

Priority:

US20050685574P 20050526	US20050685443P 20050527	US20050754812P 20051229
US20050754905P 20051229	US20050754944P 20051229	US20060441906 20060526
WO2006US20654 20060526	US20100828438 20100701	

Probable Assignee: E I DU PONT DE NEMOURS AND CO

Assignee(s): (std): DU PONT ; EIDU PONT DE NEMOURS AND CO ; SILVERMAN LEE A ; GOLDFINGER MARC B ; HAYES RICHARD A ; SILVERMAN LEE A

Assignee(s): E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; EI DU PONT DE NEMOURS AND CO

Inventor(s): (std): HAYES RICHARD A ; GOLDFINGER MARC B ; SILVERMAN LEE A ; SILVERMAN LEE A

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

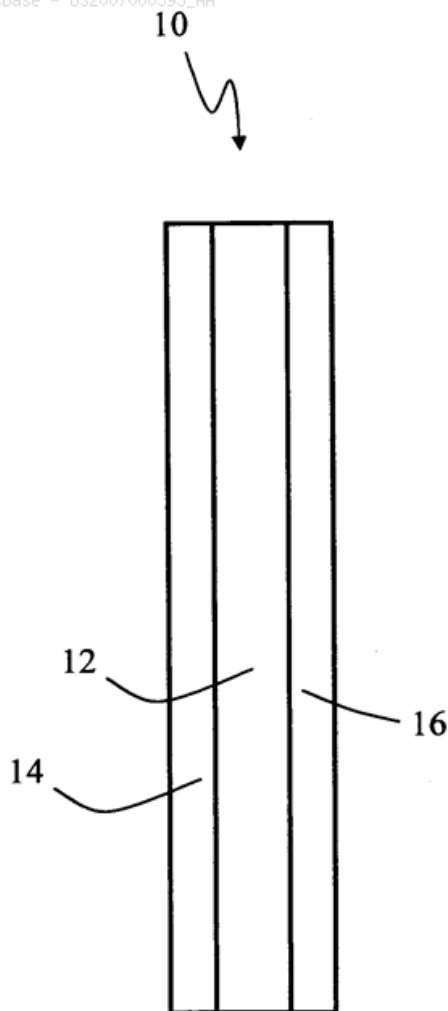
Title: METHODS OF MAKING POLYMER INTERLAYERS COMPRISING POLY(CYCLOHEXANEDIMETHYLENE TEREPHTHALATE-CO-ETHYLENE TEREPHTHALATE) COPOLYESTER

Abstract: The present invention is in the field of polymer interlayers used in multiple layer glass panels having one or more glass layers, and specifically the present invention is in the field of polymer interlayers comprising a layer of poly(cyclohexanedimethylene terephthalate-co-ethylene terephthalate) copolyester (PETG).

Classifications:

International (IPC 8-9): B29C47/06 B32B17/00 B32B17/10 B32B27/08 B32B27/30 B32B27/36 B32B27/40 C03C27/00 C03C27/12 C08G63/183 C08J5/18 C08L67/02 G02C7/00 (Advanced/Invention); B32B17/10 B32B27/08 B32B27/36 C08G63/199 C08J5/18 C08L67/02 (Advanced/Non-invention); B29C47/06 B32B17/00 B32B17/06 B32B27/08 B32B27/30 B32B27/36 B32B27/40 C03C27/00 C03C27/12 C08J5/18 C08L67/00 G02C7/00 (Core/Invention); C08J5/18 C08L67/00 (Core/Non-invention); B32B (Subclass/Invention)
CPC: B32B17/10761 Y10T428/31551 Y10T428/31616 Y10T428/31786 Y10T428/31797 Y10T428/31645 Y10T428/31649 B29C47/06 B29C47/0021 B32B17/10779 B32B2250/03 B32B2307/536 B32B2307/558 B32B2307/702 B32B2605/006 B32B27/08 B32B27/306 B32B27/32 B32B2323/04 B32B2331/04 B32B2375/00 B32B2551/00 B32B17/10 B32B17/10018 B32B17/10036 B32B17/1077 B32B17/10788 B32B27/30 B32B27/36 B32B27/40 B32B2367/00 C08G63/199
European: B29C47/06 B32B17/10 B32B17/10C2 B32B17/10C4 B32B17/10G30 B32B17/10G32 B32B17/10G36 B32B27/08 B32B27/30 B32B27/36 B32B27/40 L32B250/03 L32B307/536 L32B307/558 L32B307/702 L32B367/00 L32B605/00D M08G63/199
US: 156/99 156/99P 264/176.1 264/176.100S 428/220 428/220P 428/423.1 428/423.100S 428/430 428/430S 428/441 428/442 428/480 428/480S 428/483 428/483S

PatBase - US2007000593_AA



Family:

Publication number	Publication date	Application number	Application date
AU2006265787 AA	20070111	AU20060265787	20060629
BRPI0614042 A2	20110309	BR2006PI14042	20060629
CA2613550 AA	20071227	CA20062613550	20060629
CN101208196 A	20080625	CN200680023261	20060629
EP1910076 A1	20080416	EP20060786087	20060629
EP1910076 B1	20161005	EP20060786087	20060629
IL188451 A0	20080413	IL20060188451	20060629
JP2009500278 T2	20090108	JP20080519653T	20060629
KR20080027280 A	20080326	KR20077030452	20060629
MX2008000100 A1	20080319	MX20080000100	20060629
NO20080214 A	20080114	NO20080000214	20080114
NZ565050 A	20100326	NZ20060565050	20060629
RU2008100215 A	20090810	RU20080100215	20060629
TW200711834 A	20070401	TW20060123579	20060629
UA90725 C2	20100525	UA20080000472	20060629
US2007000593 AA	20070104	US20050170445	20050630
US2007003746 AA	20070104	US20050170643	20050630
US7686906 BB	20100330	US20050170445	20050630
WO07005711 A1	20070111	WO2006US25771	20060629

Priority:

US20050170445 20050630

US20050170643 20050630

WO2006US25771 20060629

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SOLAR CONTROL LAMINATE

Abstract: Provided are solar control laminates comprising a solar control film and a polymeric sheet. The solar control film comprises a polymeric film coated with a coating comprising inorganic infrared absorbing nanoparticles. Preferably, inorganic infrared absorbing nanoparticles comprise nanoparticles of antimony tin oxide (ATO), indium tin oxide (ITO), lanthanum hexaboride (LaB₆) or mixtures thereof. Optionally, the solar control laminate also comprises a rigid sheet, such as a glass sheet.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/00 B32B27/08 B32B27/16 B32B27/18 B32B27/28 B32B27/30 B32B27/32 B32B27/34 B32B27/36 B32B27/40 B32B5/16 B32B7/02 C08K3/22 (Advanced/Invention);

B32B17/06 B32B27/18 B32B27/30 B32B27/32 B32B27/34 B32B27/36 B32B27/40 B32B5/16 C08K3/00 (Core/Invention)

CPC: B32B17/10743 B32B17/10 B32B17/10018 B32B17/10036 B32B17/10761 B32B17/10788 B32B27/08 B32B27/16 B32B27/18

B32B27/304 B32B27/306 B32B27/32 B32B27/36 B32B27/40 B32B2250/24 B32B2255/10 B32B2255/20 B32B2255/26

B32B2264/102 B32B2307/412 B32B2307/42 B32B2307/518 B32B2307/54 B32B2367/00 B32B2419/04 B32B2551/00 B32B2605/00

B32B2605/006 B32B17/10633 Y10T428/24091 Y10T428/2495 Y10T428/24975 Y10T428/25 Y10T428/256 Y10T428/269

Y10T428/31504 Y10T428/31507 Y10T428/3154 Y10T428/31551 Y10T428/31739 Y10T428/31786 Y10T428/31855 Y10T428/31935

Y10T428/31938 Y10T428/31971

European: B32B17/10 B32B17/10C2 B32B17/10C4 B32B17/10G24 B32B17/10G28 B32B17/10G36 B32B27/08 B32B27/16

B32B27/18 B32B27/30B B32B27/30C B32B27/32 B32B27/36 B32B27/40 L32B250/24 L32B255/10 L32B255/20 L32B255/26

L32B264/10D L32B307/412 L32B307/420 L32B307/518 L32B307/540 L32B367/00 L32B419/04 L32B551/00 L32B605/00

L32B605/00D

US: 428/109 428/213 428/216 428/323 428/323P 428/328 428/328S 428/339 428/339S 428/411.1 428/412 428/412S 428/421

428/421S 428/423.1 428/423.100S 428/475.5 428/475.500S 428/480 428/480S 428/500 428/500S 428/522 428/522S 428/523

428/523S 428/532 428/532S

Family:

Publication number	Publication date	Application number	Application date
 AU2006284757 AA	20070308	AU20060284757	20060831
 AU2006284757 BB	20101209	AU20060284757	20060831
 CN101258027 A	20080903	CN200680031871	20060831
 EP1940614 A2	20080709	EP20060824865	20060831
 JP2009505871 T2	20090212	JP20080529264T	20060831
 JP5203945 B2	20130605	JP20080529264T	20060831
 US2007048519 AA	20070301	US20060512814	20060830
 US8871335 BB	20141028	US20060512814	20060830
 WO07027861 A2	20070308	WO2006US33984	20060831
 WO07027861 A3	20070628	WO2006US33984	20060831

Priority:

US20050713054P 20050831

US20050713056P 20050831

US20050721913P 20050929

US20050721719P 20050929

US20050721797P 20050929

US20060512814 20060830

WO2006US33984 20060831

Probable Assignee: E I DU PONT DE NEMOURS AND CO

Assignee(s): (std): ANDERSON JERREL C ; DU PONT ; SILVERMAN LEE A ; FUGIEL RICHARD A ; HAYES RICHARD A ; EIDU PONT DE NEMOURS AND CO ; KURARAY AMERICA INC

Assignee(s): E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; EI DU PONT DE NEMOURS AND CO

Inventor(s): (std): SILVERMAN LEE A ; HAYES RICHARD A ; FUGIEL RICHARD A ; ANDERSON JERREL C

Inventor(s): RICHARD A HAYES ; RICHARD A FUGIEL ; LEE A SILVERMAN ; JERREL C ANDERSON ; ANDERSON JERREL ; FUGIEL RICHARD ; HAYES RICHARD ; SILVERMAN LEE

Agent(s): HOULIHAN²; HOULIHAN² PTY LTD; HOULIHAN²; HEINEMANN MONICA; KUMAKURA YOSHIO; OGAWA NOBUO; HAKODA ATSUSHI; HIRAYAMA KOJI; ASAI KENJI; E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: INJECTION MOLDED MULTIPLE LAYER GLAZINGS

Abstract: The present invention is directed to the use of injection molding to form polymeric interlayers directly between two rigid substrates that are positioned so that after injection of the melted polymeric material and after cooling, the resulting multiple layer panel functions as a safety panel that can be used in any appropriate conventional safety glazing application. Methods of the present invention utilize a relatively low molecular weight polymer, multiple injection points, mold compression, and/or a heated substrate in order to facilitate the injection of polymer into the relatively narrow space between glazing substrates that is typically found in safety glazings.

Classifications:

International (IPC 8-9): B29C45/00 B29C45/14 B29C45/78 B29C65/42 B32B B32B17/10 B32B27/30 C03C27/00 C03C27/12 (Advanced/Invention); B29K31/00 B29K709/08 B29K75/00 B29L31/00 B60J1/00 (Advanced/Non-invention); B29C45/14 B32B17/06 B32B27/30 C03C27/00 C03C27/12 (Core/Invention); B29C B32B (Subclass/Invention)

International (IPC 1-7): B29C45/14 B32B17/10

CPC: B29C45/14467 B29C45/0001 B29C45/14778 B29K2031/04

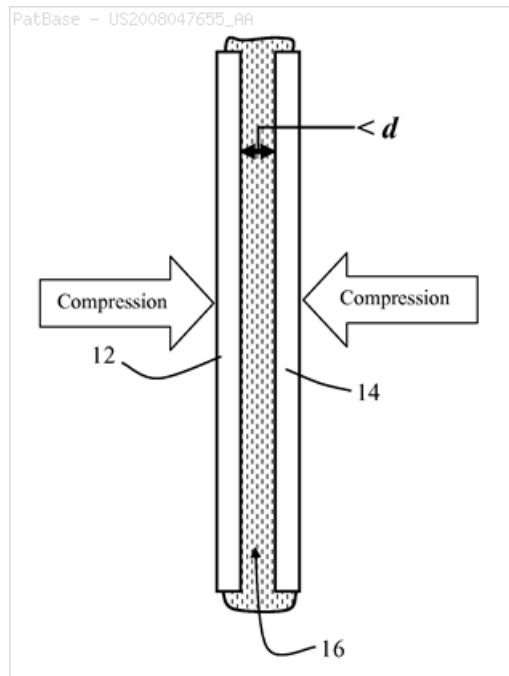
B29K2075/00 B29K2709/08 B29K2995/0088 B29L2031/7782

B32B17/10036 B32B17/10743 B32B17/10761 B32B17/1077

B32B17/10788 B32B17/10917

European: B29C45/00B B29C45/14G B29C45/14Q B32B17/10C4 B32B17/10G24 B32B17/10G28 B32B17/10G30 B32B17/10G36 B32B17/10L16B2 L29K31/04 L29K709/08 L29K75/00 L29K995/00F29 L29L31/7782

US: 1/1 156/109

**Family:**

Publication number	Publication date	Application number	Application date
AT518649 E	20110815	AT20070814326T	20070822
AU2007286709 AA	20080228	AU20070286709	20070822
AU2012201329 AA	20120329	AU20120201329	20120306
AU2012201329 BB	20130815	AU20120201329	20120306
BRPI0715858 A2	20130723	BR2007PI15858	20070822
CA2661057 AA	20090218	CA20072661057	20070822
CA2661057 C	20141021	CA20072661057	20070822
CN101535045 A	20090916	CN200780038681	20070822
CN101535045 B	20140618	CN200780038681	20070822
DE602007016301 D1	20110929	DE200760016301T	20070822
EP2057010 A1	20090513	EP20070814326	20070822
EP2057010 B1	20110803	EP20070814326	20070822
ES2368613 T3	20111118	ES20070814326T	20070822
IL197126 A0	20091118	IL20070197126	20070822
IL197126 A1	20150831	IL20070197126	20070822
IN01463CN2009 A	20141219	IN2009CN01463	20090313
JP2010501374 T2	20100121	JP20090525744T	20070822
JP2013063662 A2	20130411	JP20120248974	20121113
JP2015128901 A2	20150716	JP20150000346	20150105
JP5713983 B2	20150507	JP20120248974	20121113
JP6012774 B2	20161025	JP20150000346	20150105
KR101424299 B1	20140806	KR20097003525	20070822
KR20090053788 A	20090527	KR20097003525	20070822
MX2009001931 A1	20090416	MX20090001931	20070822
NO20091097 A	20090522	NO20090001097	20090313
RU2009109093 A	20100927	RU20090109093	20070822
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TW200819280 A	20080501	TW20070130227	20070815
TWI418455 B	20131211	TW20070130227	20070815
US2008047655 AA	20080228	US20060466765	20060823
US9242401 BB	20160126	US20060466765	20060823
VN10270 A1	20120625	VN20090000343	20070822
WO08024805 A1	20080228	WO2007US76462	20070822
ZA200901821 A	20100331	ZA20090001821	20090313

Priority:

US20060466765	20060823	AU20070286709	20070822	JP20090525744	20070822
JP20120248974	20070822	EP20070814326	20070822	WO2007US76462	20070822
AU20120201329	20120306	JP20150000346	20150105		

Probable Assignee: SOLUTIA INC

Assignee(s): (std): YUAN PING ; KORAN FRANCOIS ; KARAGIANNIS ARISTOTELIS ; SOLUTIA INC ; KORAN FRANCOIS ANDRE

Assignee(s): FLEXSYS AMERICA LP ; SOLUTIA INC575 MARYVILLE CENTRE DRIVEST. LOUISMO63141US ; SOLUTIA INC ST LOUIS ; CITIBANK NA ; CPMFILMS INC ; DEUTSCHE BANK TRUST CO ; DEUTSCHE BANK TRUST CO AMERICAS COLLATERAL AGENT A ; DEUTSCHE BANK TRUST CO AMERICAS COLLATERAL AGENT AS

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Agent(s): BALDWIN INTELLECTUAL PROPERTY; NELLIGAN O BRIEN PAYNE LLP; NELLIGAN OBRIEN PAYNE LLP; KRAUS AND WEISERT PATENTANWAELTE PARTGMBB; BECKMANN CLAUS; REINHOLD COHN AND PARTNERS; OSAKI KATSUMASA; TSUBOKURA MICHIAKI; KANAYAMA MASATAKA; KAWAGUCHI YOSHIO; ONO MAKOTO; YAMAMOTO OSAMU; TAKEUCHI SHIGEO; ONO SHINJIRO; MATSUYAMA MINAKO; KOBAYASHI YASUSHI; BRENC LAW, ANDREW BRENC; BRENC LAW ANDREW BRENC; STEVEN A; BRENC ANDREW

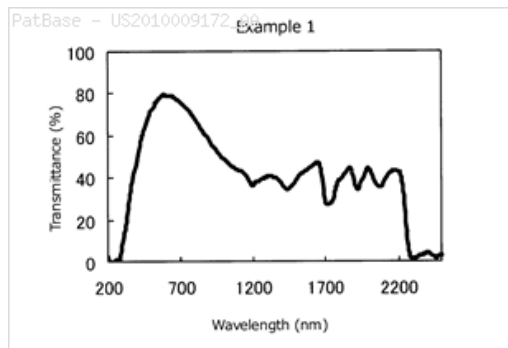
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: FILM AND INTERMEDIATE FILM FOR LAMINATED GLASS COMPOSED OF THE SAME

Abstract: A film is provided that is formed of at least one kind of a thermoplastic resin (A), selected from the group consisting of a polyvinyl acetal resin, a polyethylene vinyl acetate copolymer resin, a polyurethane resin, a polyester resin, and a polyacrylic resin, and contains microparticles of a copper compound (B) having an average particle diameter of 200 nm or less. The film is excellent in transparency, a heat-shielding property, electromagnetic wave permeability, and durability, so that it is suitable to be an interlayer film for laminated glass.

Classifications:

International (IPC 8-9): B29D7/01 B29K29/00 B29K31/00 B29K33/04 B29K67/00 B29K75/00 B32B15/02 B32B17/10 B32B27/04 B60J1/00 C03C27/12 C08J3/28 C08J5/18 C08K3/08 C08K3/10 C08K3/30 C08L29/14 (Advanced/Invention); B29K29/00 B29K31/00 B29K33/04 B29K67/00 B29K75/00 G02B1/10 (Advanced/Non-invention); B32B15/02 B32B17/06 B32B27/04 B60J1/00 C03C27/12 C08J5/18 C08K3/00 (Core/Invention); B29D7/01 B29K29/00 B29K31/00 B29K33/04 B29K67/00 B29K75/00 B32B17/10 C08J5/18 C08K3/10 C08K3/30 G02B1/10 (Core/Non-invention) **CPC:** B32B17/10633 B32B17/10761 B32B17/10743 B32B17/1077 B32B17/10779 B32B17/10788 B60J1/00 C03C27/06 C08J5/18 C08J2329/14 C08J2331/04 C08K3/08 Y10T428/256 Y10T428/268 **European:** B32B17/10G24 B32B17/10G28 B32B17/10G30 B32B17/10G32 B32B17/10G36 B60J1/00 C03C27/06 C08J5/18 C08K3/08 M08J329/14 M08J331/04 **US:** 359/350 359/350S 428/328 428/328P 428/338 428/338S 524/440 524/440S



Family:

Publication number	Publication date	Application number	Application date
CN101668715 A	20100310	CN200880013583	20080226
CN102775707 A	20121114	CN201210244574	20080226
EP2128106 A1	20091202	EP20080711955	20080226
EP2128106 A4	20120829	EP20080711955	20080226
EP2128106 A8	20100113	EP20080711955	20080226
JP2008105380 A1	20100603	JP20090501233T	20080226
TW200844150 A	20081116	TW20080106773	20080227
US2010009172 AA	20100114	US20080529076	20080226
WO08105380 A1	20080904	WO2008JP53226	20080226

Priority:

JP20070048611 20070228 JP20070048612 20070228 WO2008JP53226 20080226

Probable Assignee: KURARAY CO LTD

Assignee(s): (std): ENDO RYOKEI ; KURARAY CO ; MORIGUCHI NOBUHIRO ; MORIKAWA KEISUKE

Assignee(s): KURARAY CO LTD ; KURARAY CO LTD JP

Inventor(s): (std): ENDO RYOKEI ; KEISUKE MORIKAWA ; MORIGUCHI NOBUHIRO ; MORIKAWA KEISUKE ; NOBUHIRO MORIGUCHI ; RYOKEI ENDO

Agent(s): MUELLER BORE AND PARTNER PATENTANWAELTE; NAKATSUKASA SHIGEKI; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLAZING ELEMENT, NOTABLY FOR MOTOR VEHICLES.

Abstract: The invention relates to a glazing element (10), of the type comprising a plate of glass (11) coated on one of its faces with a protective film (12) fixed to said face by an adhesive film (13), the edge (13a) of which is sent back from the edge of the protective film (12a). The edge (12a) of the protective film (12) comprises a succession of cut-outs (20) for maintaining said protective film (12) in a bead of glue.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/10 B60J1/00

B60J10/02 (Advanced/Invention);

B32B17/06 B32B27/10 B60J1/00 B60J10/02 (Core/Invention)

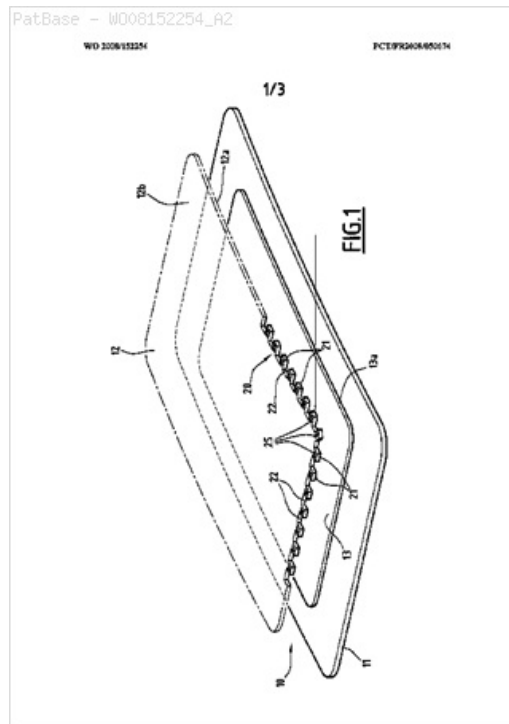
CPC: B60J10/70 B32B17/10293 B32B17/10018 B32B17/10761

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B60J1/02

European: B32B17/10C2 B32B17/10E16 B32B17/10G28 B32B17/10G30

B32B17/10L10B B60J1/00H B60J1/02 B60J10/02 L32B367/00 L32B369/00



Family:

Publication number	Publication date	Application number	Application date
AT504440 E	20110415	AT20080788188T	20080416
DE602008006066 D1	20110519	DE200860006066T	20080416
EP2152514 A2	20100217	EP20080788188	20080416
EP2152514 B1	20110406	EP20080788188	20080416
ES2364446 T3	20110902	ES20080788188T	20080416
FR2917008 A1	20081212	FR20070055602	20070608
FR2917008 B1	20090904	FR20070055602	20070608
WO08152254 A2	20081218	WO2008FR50674	20080416
WO08152254 A3	20090212	WO2008FR50674	20080416

Priority:

FR20070055602 20070608 WO2008FR50674 20080416

Probable Assignee: PEUGEOT CITROEN AUTOMOBILES SA

Assignee(s): (std): DAVID JEROME ; PEUGEOT CITROEN AUTOMOBILES SA

Assignee(s): PEUGEOT CITROEN AUTOMOBILES SA SOCIETE ANONYME ; PEUGEOT CITROEN AUTOMOBILES SOC ANONYME SA ; PEUGEOT CITROEN AUTOMOBILES S A

Inventor(s): (std): DAVID JEROME

Inventor(s): JEROME DAVID

Agent(s): PEUGEOT CITROEN AUTOMOBILES SA; CALLU DANSEUX VIOLAINE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PLASTIC LAMINATES AND METHODS FOR MAKING THE SAME

Abstract: In one embodiment, a multilayer structure comprises: an initial terpolymer layer, a second layer comprising plastic and/or glass, a polycarbonate layer, and an adhesive layer. The initial terpolymer layer comprises a polycarbonate terpolymer derived from a first dihydroxy compound, a second dihydroxy compound, and a third dihydroxy compound, the first dihydroxy compound has Structure (A) wherein R^f is a hydrogen or CH₃; the second dihydroxy compound has Structure (A) and is different from the first dihydroxy compound; and the third dihydroxy compound does not have Structure (A), and wherein a sum of mole percent of all of the first dihydroxy compound and the second dihydroxy compound is greater than or equal to 45 percent relative to a sum of mole percent of all of the first dihydroxy compound, the second dihydroxy compound, and the third dihydroxy compound in the polycarbonate terpolymer.

Classifications:

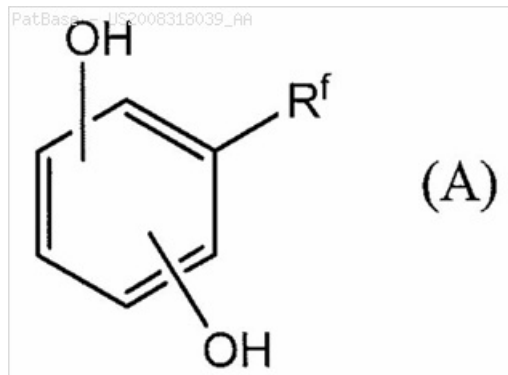
International (IPC 8-9): B32B17/10 B32B27/00 B32B27/08 B32B27/28 B32B27/36 B32B37/00 B32B37/02 B32B7/12 C08G64/06 C08J5/12 G11B7/253 G11B7/2531 G11B7/2535 (Advanced/Invention); B32B17/06 B32B27/00 B32B37/02 B32B7/12 C08G64/00 C08J5/12 G11B7/24 (Core/Invention)

International (IPC 1-7): B32B17/10 B32B7/12

CPC: Y10T428/2848 Y10T428/31504 Y10T428/31507 C08G64/06 B32B17/10788 B32B37/12 B32B2315/08 B32B17/10018 B32B17/10752 B32B17/10761 B32B2369/00 C08J5/128 C08J2369/00

European: B32B17/10C2 B32B17/10G26 B32B17/10G28 B32B17/10G36 C08G64/06 C08J5/12H6 L32B315/08 L32B369/00 L32B37/12 M08J369/00

US: 156/325 156/325S 156/327 156/327S 428/354 428/354P 428/411.1 428/412 428/412P



Family:

Publication number	Publication date	Application number	Application date
AR069822 AA	20100224	AR2008P102626	20080619
AT495887 E	20110215	AT20080763315T	20080612
CL2008001812 A1	20090116	CL20080001812	20080618
CN101784387 A	20100721	CN200880103471	20080612
CN101784387 B	20130130	CN200880103471	20080612
DE602008004657 D1	20110303	DE200860004657T	20080612
EP2158081 A1	20100303	EP20080763315	20080612
EP2158081 B1	20110119	EP20080763315	20080612
TW200916312 A	20090416	TW20080122419	20080616
TWI383888 B	20130201	TW20080122419	20080616
US2008318039 AA	20081225	US20080133016	20080604
US2008318053 AA	20081225	US20070765003	20070619
US8642176 BB	20140204	US20080133016	20080604
WO08155694 A1	20081224	WO2008IB52327	20080612

Priority:

US20070765003 20070619 US20080133016 20080604 WO2008IB52327 20080612

Probable Assignee: SABIC GLOBAL TECHNOLOGIES BV

Assignee(s): (std): BERNDSEN JOSEF GERARDUS ; BOVEN GEERT ; GOOSSENS JOHANNES MARTINUS DINA ; GEN ELECTRIC ; SABIC INNOVATIVE PLASTICS IP ; GOOSSENS JOHANNES MARTINUS DIN ; VAN PEER CORNELIUS JOHANNES GE ; VAN PEER CORNELIS JOHANNES GERARDUS MARIA

Assignee(s): SABIC GLOBAL TECHNOLOGIES BV ; VAN PEER CORNELIUS JOHANNES GERARDUS MARIA ; SABIC INNOVATIVE PLASTICS IP BV ; SABIC INNOVATIVE PLASTICS IP B V ; GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY ; CITIBANK NA ; CITIBANK NA COLLATERAL AGENT AS

Inventor(s): (std): BERNDSEN JOSEF GERARDUS ; BOVEN GEERT ; DINA GOOSSENS JOHANNES MARTINUS ; GEERT BOVEN ; GERARDUS BERNDSEN JOSEF ; GOOSSENS JOHANNES MARTINUS DIN ; GOOSSENS JOHANNES MARTINUS DINA ; GROOSSENS JOHANNES MARTINUS DINA ; VAN PEER CORNELIS JOHANNES GER ; VAN PEER CORNELIS JOHANNES GERARDUS MARIA ; VAN PEER CORNELIUS JOHANNES GERARDUS ; VAN PEER CORNELIUS JOHANNES GERARDUS MARIA ; MARIA PEER CORNELIUS JOHANNES GERARDUS VAN ; VAN PEER CORNELIUS JOHANNES GE

Inventor(s): BERNDSEN ; VAN PEER ; JOHANNES MARTINUS DINA ; JOSEF GERARDUS ; GOOSSENS ; GEERT ; CORNELIS JOHANNES GERARDUS MARIA ; BOVEN

Agent(s): CLARKE; CARPINTERO LOPEZ FRANCISCO; CANTOR COLBURN LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLASS LAMINATE CONTAINING POLY VINYL ACETAL

Abstract: A process comprises constructing a sub-assembly including a rigid layer and a poly (vinyl acetal) interlayer in a vacuum bag or vacuum press; applying vacuum to the vacuum bag or vacuum press for a maximum of 30 to 60 minutes while maintaining the sub-assembly at a temperature between 10 degrees centigrade and 22 degrees centigrade to produce a cooled sub-assembly; increasing the temperature of the cooled sub-assembly to at least 100 degrees centigrade or 125 degrees centigrade over a minimum of 10 minutes or 20 minutes to produce a heated sub-assembly; maintaining the heated sub-assembly at minimum of 100 degrees centigrade or 125 degrees centigrade for a minimum of 10 minutes or 20 minutes to form a laminate; cooling the laminate at a rate of at least 0.5 degrees centigrade /minute until the laminate reaches a temperature below 40 degrees centigrade; contemporaneously with the cooling, removing the vacuum from the vacuum bag, containing the laminate, and allowing the laminate to reach atmospheric pressure.

Classifications:

International (IPC 8-9): B29C65/00 B32B17/10 B32B37/10

C03C27/12 (Advanced/Invention);

B32B17/06 B32B37/10 C03C27/12 (Core/Invention)

CPC: B32B17/10036 B32B17/10743 B32B17/10761 B32B17/10834

B32B17/10871 B32B17/10972 B32B17/1099 B32B17/10853

B32B17/10981 B32B37/1018 B32B2309/022 B32B2309/025

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B32B2605/00

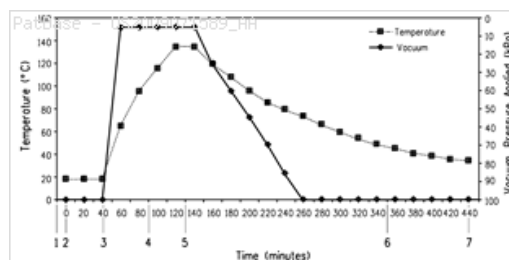
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B32B17/10L22 B32B17/10L24 B32B37/10B L32B309/02A L32B309/02B

L32B309/12 L32B317/18 L32B367/00 L32B369/00 L32B605/00

US: 156/104 156/285 156/286 156/311 156/381 156/382



Family:

Publication number	Publication date	Application number	Application date
EP2190663 A1	20100602	EP20080832091	20080915
US2009071589 AA	20090319	US20070856385	20070917
US2009071604 AA	20090319	US20070856531	20070917
US8097113 BB	20120117	US20070856385	20070917
US8097114 BB	20120117	US20070856531	20070917
WO09039053 A1	20090326	WO2008US76349	20080915
ZA201000713 A	20110428	ZA20100000713	20100129

Priority:

US20070856385 20070917 US20070856531 20070917 WO2008US76349 20080915

Probable Assignee: KURARAY CO LTD

Assignee(s): (std): DU PONT ; MOEYERSONS LUC A

Assignee(s): E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; KURARAY AMERICA INC ; KURARAY CO LTD

Inventor(s): (std): MOEYERSONS LUC ; MOEYERSONS LUC A

Agent(s): DANNENBERGER OLIVER ANDRE; E I DU PONT DE NEMOURS AND COMPANY,LEGAL PATENT RECORDS CENTER; E I DU PONT DE NEMOURS AND CO LEGAL PATENT RECORDS CENTER; LUCAS K; SHAY LUCAS K

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LIGHTWEIGHT TRANSPARENT ARMOR WINDOW**Abstract:** The invention relates to a lightweight transparent armor laminate comprising layers of borosilicate glass, layers of transparent glass-ceramics and a polymer spall layer of polycarbonate and/or polymethyl methacrylate. The layers are bound by polyurethane and/or polyvinylbutyral interlayer films.**Classifications:****International (IPC 8-9):** B32B17/06 B32B17/10 B32B27/32 B32B7/02

B32B9/00 C03C C03C1/00 C03C27/12 F41H5/00 F41H5/02

F41H5/04 (Advanced/Invention);

C03C27/12 (Core/Invention);

C03C27/12 (Core/Non-invention);

C03C F41H (Subclass/Invention)

CPC: F41H5/0407 B32B17/10045 B32B17/10761 B32B17/1077

B32B2333/12 B32B2369/00 B32B17/10119 Y10T428/24942

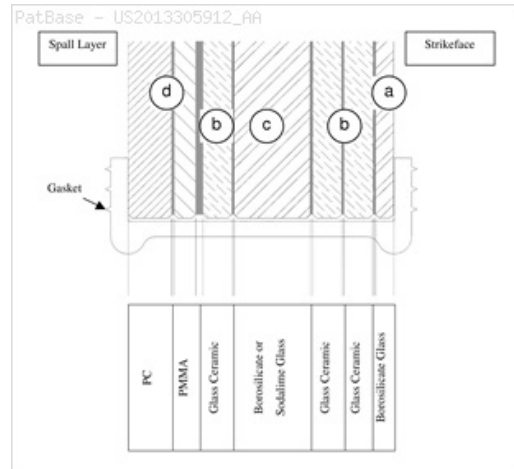
Y10T428/31507 Y10T428/31518 Y10T428/31601

European: B32B17/10C4B B32B17/10G28 B32B17/10G30 F41H5/04B

L32B333/12 L32B369/00

US: 428/212 428/220 428/412 428/415 428/425.6 428/428 89/36.02

89/903 89/910 89/917

**Family:**

Publication number	Publication date	Application number	Application date
■ CN101815688 A	20100825	CN200880109500	20080926
■ CN101815688 B	20130717	CN200880109500	20080926
■ EP2244988 A2	20101103	EP20080834214	20080926
■ EP2244988 A4	20140402	EP20080834214	20080926
■ IL204586 A0	20101130	IL20080204586	20080926
■ IL204586 A1	20150630	IL20080204586	20080926
■ TW200930674 A	20090716	TW20080137341	20080926
■ TWI450869 B	20140901	TW20080137341	20080926
■ US2013305912 AA	20131121	US20080052021	20080320
■ US8603616 BA	20131210	US20080052021	20080320
■ WO09042877 A2	20090402	WO2008US77873	20080926
■ WO09042877 A3	20090528	WO2008US77873	20080926

Priority:

US20070975661P 20070927 US20080052021 20080320 WO2008US77873 20080926

Probable Assignee: ORAN SAFETY GLASS INC**Assignee(s):** (std): SCHOTT CORP ; WEINHOLD CARSTEN**Assignee(s):** ORAN SAFETY GLASS INC**Inventor(s):** (std): CARSTEN WEINHOLD ; WEINHOLD CARSTEN**Agent(s):** FUCHS; REINHOLD COHN AND PARTNERS; OHLANDT GREELEY RUGGIERO AND PERLE LLP; BRANIGAN JENNIFER J ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Glasaufbau einer Panzerglasverbundscheibe Structure of glass of a bullet-proof glass compound plate (Machine translation)

Abstract: Source: DE202008016395U1 [DE] (Claim 1) 1. Glasaufbau einer Panzerglasverbundscheibe, wie fuer ein nach STANAG 4569, Level 1 gepanzertes Kraftfahrzeug, aus mehreren Schichten miteinander verbundener Glas-, Kunststoff- und/oder Keramikscheiben, mit einer Kunststoffscheibe auf der einem Innenraum zugewandten Innenseite und einer Floatglasscheibe auf der nach aussen gerichteten Aussenseite, dadurch gekennzeichnet, dass der ersten Floatglasscheibe (12) eine Floatglasscheibe (10) mit einem groesseren Dickenmass und darauf eine Floatglasscheibe (8) mit einem geringeren Dickenmass als dem der ersten Floatglasscheibe folgt und sich daran eine Polycarbonatglasscheibe (5), eine PMMA-Scheibe (3) und wieder eine Polycarbonatglasscheibe (1) als Abschlussscheibe auf der Innenseite anschliesst, wobei im uebergangsbereich von Floatglas- zu Kunststoffscheiben eine Verbindungsschicht mit einem gegenueber dem Mass der anderen Verbindungsschichten (2; 4; 6; 7; 9; 11) vergroesserten Dickenmass angeordnet ist.

Machine translation: (Claim 1) 1. Structure of glass of a bullet-proof glass compound plate, as for after STANAG 4569, level 1 armored motor vehicle, from several layers of connected glass, plastic and/or ceramic(s) disks, with a plastic disk on an interior turned the inside and a floating windowpane on the exterior, by, the fact directed outward, characterized that a floating windowpane (10) with a larger thickness measure follows the first floating windowpane (12) and after it a floating windowpane (8) with a smaller thickness measure than that the first floating windowpane and itself to it a polycarbonate windowpane (5), a PMMA disk (3) and again a polycarbonate windowpane (1) as thrust washer on the inside attaches, whereby in the transient area from floating glass to plastic disks a session layer with one in relation to the measure of the other session layers (2; 4; 6; 7; 9; 11) increased thickness measure is arranged.

Classifications:

International (IPC 8-9): B32B17/10 C03C27/12

F41H5/26 (Advanced/Invention);

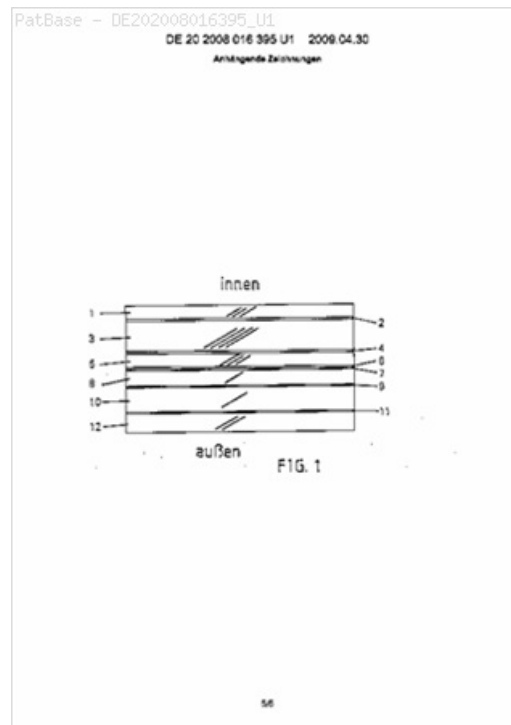
B32B17/06 C03C27/12 F41H5/00 (Core/Invention)

CPC: B32B17/10045 B32B17/10761 B32B17/1077 B32B2333/12

B32B2369/00 F41H5/0407

European: B32B17/10C4B B32B17/10G28 B32B17/10G30 F41H5/04B

L32B333/12 L32B369/00



Family:

Publication number	Publication date	Application number	Application date
DE202008016395 U1	20090326	DE200820016395U	20081212

Priority:

DE200820016395U 20081212

Probable Assignee: GUS PRAEZISION IN KUNSTSTOFF GLAS UND OPTIK GMBHand CO KG

Assignee(s): (std): GUS PRAEZISION IN KUNSTSTOFF GLAS UND OPTIK GMBHand CO KG

Title: TRANSPARENT LAMINATED GLASS AND USE THEREOF

Abstract: the present invention relates to a transparent laminated glass comprising a transparent outer pane (1) with a thickness of 1.45 mm to 1.8 mm, at least one polymer layer (2) with a thickness of 0.5 mm to 4.0 mm and a transparent inner pane (3) with a thickness of 1.0 mm to 1.4 mm, wherein the at least one polymer layer contains ethylene vinyl acetates, plasticized polyvinyl butyral, polyurethanes, polycarbonates, polyethylene terephthalates, and/or ionomers as wet as copolymers and/or combinations thereof, and the ratio of the thickness of the transparent outer pane (1) to the sum of the thickness of the transparent outer pane (1) and the transparent inner pane (3) is 0.509 to 0.643.

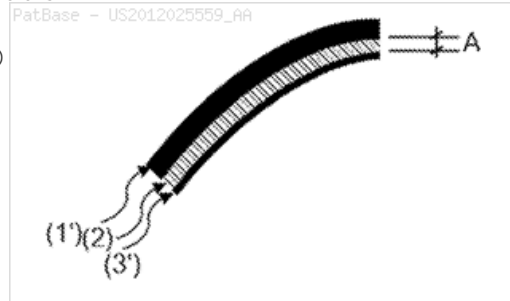
Classifications:

International (IPC 8-9): B32B17/10 B32B37/18 B32B38/00 B32B7/02 B60G1/00 B60J1/00 B60J1/02 C03C27/00 C03C27/12 (Advanced/Invention)

CPC: B32B17/10174 B32B17/1055 B32B17/10183 B32B17/1022 B32B17/10752 B32B17/10761 B32B17/1077 B32B17/10779 B32B17/10788 Y10T428/24967 B32B17/10064 B32B38/0012 B32B37/182 B32B2250/03 B32B2307/412 B32B2605/006 B60J1/001 B32B17/10743 B60J1/02 B32B17/10036 Y10T428/24628

European: B32B17/10C4 B32B17/10E10 B32B17/10G

US: 1/1 156/102 156/99 296/84.1 296/84.100P 428/174 428/215 428/215S



Family:

Publication number	Publication date	Application number	Application date
BRPI1007549 A2	20160216	BR2010PI07549	20100419
CA2748596 AA	20101028	CA20102748596	20100419
CA2748596 C	20151229	CA20102748596	20100419
CN202826594 U	20130327	CN201090000846U	20100419
DE102009017805 A1	20101021	DE200910017805	20090420
DE102009017805 B4	20120516	DE200910017805	20090420
DE502010003365 D1	20130711	DE201050003365T	20100419
EP2421704 A1	20120229	EP20100715217	20100419
EP2421704 B1	20130515	EP20100715217	20100419
EP2421704 B9	20130821	EP20100715217	20100419
ES2413454 T3	20130716	ES20100715217T	20100419
IN02676KN2011 A	20120113	IN2011KN02676	20110628
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JP5809132 B2	20151110	JP20120505184T	20100419
KR20120004415 A	20120112	KR20117021783	20100419
MX2011010994 A1	20111102	MX20110010994	20100419
PT2421704 T	20130712	PT20100715217T	20100419
US2012025559 AA	20120202	US20100147192	20100419
US2015231949 AA	20150820	US20150700003	20150429
US2015239215 AA	20150827	US20150699995	20150429
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WO10121986 A1	20101028	WO2010EP55108	20100419

Priority:

DE200910017805 20090420	EP20100715217 20100419	WO2010EP55108 20100419
US20110147192 20111011	US20150700003 20150429	US20150699995 20150429

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): DUNKMANN BENNO ; OFFERMANN VOLKMAR ; SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SEKURIT D GMBH ; SAINT GOBAIN SA

Assignee(s): SAINT GOBAIN SEKURIT DEUTSCHLAND GMBH AND CO KG

Inventor(s): (std): BENNO DUNKMANN ; OFFERMANN VOLKMAR DR ; VOLKMAR OFFERMANN ; OFFERMANN VOLKMAR ; DUNKMANN BENNO

Agent(s): GOUDREAU GAGE DUBUC; LENDVAI TOMAS DIPL CHEM DRRERNAT; LENDVAI TOMAS; DE ELZABURU ALBERTO; KAWAGUTI AND PARTNERS; STEINFL AND BRUNO LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TRANSPARENT LAMINATE STRUCTURES

Abstract: A transparent laminate structure is provided that includes two transparent layers, a transparent interlayer, and an inorganic barrier layer. The two transparent layers each have an inner face and a side edge. The transparent interlayer is between and laminates the inner faces of the two transparent layers to one another. The transparent interlayer also extends over the side edges of the two transparent layers and laminates the inorganic barrier layer to at least the side edges of the two transparent layers.

Classifications:

International (IPC 8-9): B29C B29C51/26 B29C51/28 B32B15/00

B32B17/06 B32B17/10 B32B18/00 B32B27/08 B32B27/36 B32B3/02

C04B35/634 C04B37/00 C04B37/02 C04B37/04

F41H5/04 (Advanced/Invention);

B29C B32B C04B (Subclass/Invention)

CPC: B32B18/00 B32B17/10036 B32B17/10302 B32B17/10761

B32B17/1077 B32B27/365 B32B2307/412 B32B2369/00 C04B35/63408

C04B35/6342 C04B35/63424 C04B35/63456 C04B35/63488 C04B37/008

C04B37/028 C04B37/047 C04B2235/32 C04B2235/483 C04B2235/6581

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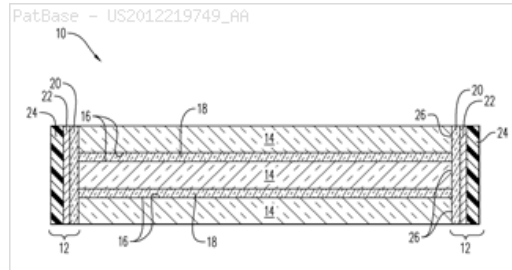
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C04B2237/704 C04B2237/706 C04B2237/72 C04B2237/80 F41H5/0407 Y10T428/23 Y10T428/239 B32B17/10018 Y10T428/31507

European: B32B18/00 C04B37/00K M04B235/32 M04B235/96J4

US: 428/412 428/412S 428/68 428/68S 428/76 428/76P

**Family:**

Publication number	Publication date	Application number	Application date
EP2678145 A1	20140101	EP20120749635	20120224
EP2678145 A4	20150513	EP20120749635	20120224
IL228089 A0	20130930	IL20120228089	20120224
IL228089 A1	20160531	IL20120228089	20120224
US2012219749 AA	20120830	US20120404849	20120224
US8846174 BB	20140930	US20120404849	20120224
WO12116316 A1	20120830	WO2012US26598	20120224

Priority:

US20110446623P 20110225 US20120404849 20120224 WO2012US26598 20120224

Probable Assignee: ORAN SAFETY GLASS INC

Assignee(s): (std): ALESHIRE EDGAR L ; CARBERRY JOHN ; CHRISTOPHER M SNIVELY ; EDGAR L ALESHIRE ; ERIC URRUTI ; SCHOTT CORP ; NEILL REBECCA S ; LEIGHTON KATHERINE T ; SERAFIN WIKTOR ; SNIVELY CHRISTOPHER M ; REBECCA S NEILL ; JOHN CARBERRY ; KATHERINE T LEIGHTON ; WEGERT THEODORE A ; URRUTI ERIC ; WIKTOR SERAFIN ; THEODORE A WEGERT

Assignee(s): ORAN SAFETY GLASS INC

Inventor(s): (std): ALESHIRE EDGAR L ; CARBERRY JOHN ; CHRISTOPHER M SNIVELY ; EDGAR L ALESHIRE ; ERIC URRUTI ; JOHN CARBERRY ; KATHERINE T LEIGHTON ; LEIGHTON KATHERINE T ; NEILL REBECCA S ; REBECCA S NEILL ; SERAFIN WIKTOR ; SNIVELY CHRISTOPHER M ; THEODORE A WEGERT ; URRUTI ERIC ; WEGERT THEODORE A ; WIKTOR SERAFIN

Agent(s): HROVAT ANDREA DARINKA; SOROKER AGMON; OHLANDT GREELEY RUGGIERO AND PERLE LLP; MCMAHON EDWARD L

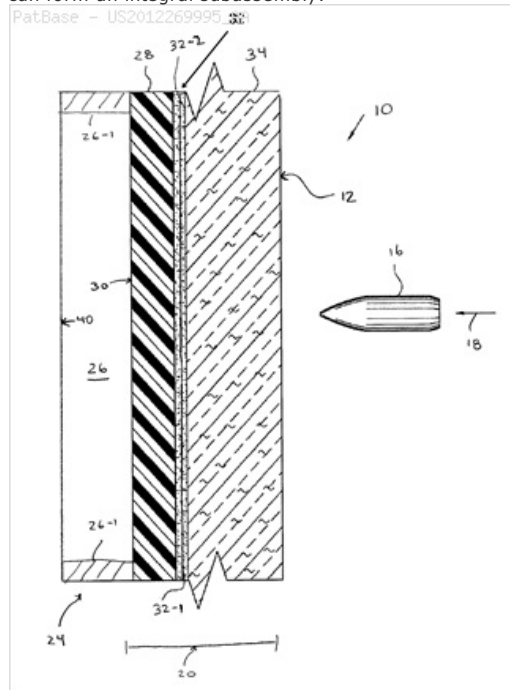
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Title: LIGHT WEIGHT TEMPERATURE RESISTANT TRANSPARENT LAMINATE STRUCTURE

Abstract: A transparent laminate structure is provided that includes a front section, a rear section, and a middle section securing the front and rear sections to one another with a gap therebetween. The front section has a strike face formed of an impact resistant layer and a polymer backing layer bonded to the impact resistant layer by an interlayer. The rear section has a forward face comprising at least one polymer layer. The front and middle sections can form an integral subassembly.

Classifications:

International (IPC 8-9): B29C B29C65/48 B32B1/06 B32B17/04 B32B17/10 B32B27/08 B32B27/12 B32B27/30 B32B27/36 B32B27/40 B32B5/02 B32B7/02 B32B7/04 B32B7/12 B62D29/00 F41H5/04 (Advanced/Invention); B29C B32B (Subclass/Invention)
CPC: B32B7/04 B32B7/02 B32B7/12 B32B17/04 B32B17/10018 B32B17/10064 B32B17/10119 B32B17/1077 B32B27/08 B32B27/30 B32B27/365 B32B27/40 B32B2307/412 B32B2307/51 B32B2307/558 B32B2333/12 B32B2369/00 B32B2571/02 F41H5/0407 Y10T428/239 Y10T428/24967 Y10T428/31507
US: 296/181.1 428/215 428/34 428/412 428/76



Family:

Publication number	Publication date	Application number	Application date
EP2699405 A1	20140226	EP20120773939	20120420
EP2699405 A4	20150513	EP20120773939	20120420
IL229002 A0	20131231	IL20120229002	20120420
IL229002 A1	20180731	IL20120229002	20120420
US2012269995 AA	20121025	US20120452424	20120420
US10046540 BB	20180814	US20120452424	20120420
WO12145664 A1	20121026	WO2012US34509	20120420

Priority:

US20110478299P 20110422 US20120452424 20120420 WO2012US34509 20120420

Probable Assignee: ORAN SAFETY GLASS INC

Assignee(s): (std): ALESHIRE EDGAR L ; ALESHIRE EDWARD L ; CARSTEN WEINHOLD ; CHRISTOPHER M SNIVELY ; SCHOTT CORP ; SCHAUPERT KURT ; LEIGHTON KATHERINE T ; EDGAR L ALESHIRE ; KATHERINE T LEIGHTON ; KURT SCHAUPERT ; CHRISTOPHER M SNIVELY ; ORAN SAFETY GLASS INC ; SERAFIN WIKTOR ; WEGERT THEODORE A ; SNIVELY CHRISTOPHER M ; WEINHOLD CARSTEN ; WIKTOR SERAFIN

Inventor(s): (std): ALESHIRE EDGAR L ; ALESHIRE EDWARD L ; CARSTEN WEINHOLD ; CHRISTOPHER M SNIVELY ; EDGAR L ALESHIRE ; CHRISTOPHER M SNIVELY ; LEIGHTON KATHERINE T ; SERAFIN WIKTOR ; WEGERT THEODORE A ; SCHAUPERT KURT ; WEINHOLD CARSTEN ; SNIVELY CHRISTOPHER M ; KATHERINE T LEIGHTON ; KURT SCHAUPERT ; WIKTOR SERAFIN

Agent(s): FUCHS; SOROKER AGMON NORDMAN; OHLANDT GREELEY RUGGIERO AND PERLE LLP; MCMAHON EDWARD L

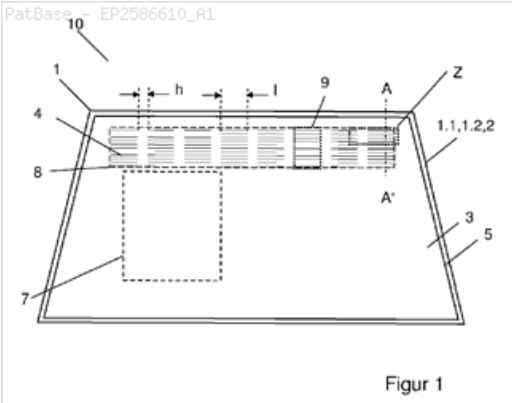
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Title: SHEET WITH HIGH FREQUENCY TRANSMISSION PLAQUE DOTEE D'UNE TRANSMISSION HAUTE F

Abstract: The disc comprises a first disc (1.1), an interfacial layer (2), a second disc (1.2), and a transparent, electrically conductive coating (3), which is arranged between the interfacial layer and the first disc and/or between the interfacial layer and the second disc. The transparent, electrically conductive coating comprises five regions with seven decoated lines (4) that are horizontally or vertically arranged. A vertical spacing (9.5-30.5 mm) is present between the neighboring lines. The lines have a breadth of 0.19-0.41 mm, and a length of 20-150 mm. The disc comprises a first disc (1.1), an interfacial layer (2), a second disc (1.2), and a transparent, electrically conductive coating (3), which is arranged between the interfacial layer and the first disc and/or between the interfacial layer and the second disc. The transparent, electrically conductive coating comprises five regions with seven decoated lines (4) that are horizontally or vertically arranged. A vertical spacing (9.5-30.5 mm) is present between the neighboring lines. The lines have a breadth of 0.19-0.41 mm, and a length of 20-150 mm. The disc further comprises a single disc having an outer side and an inner side. The conductive coating is arranged on the outer and/or inner side of the single disc, and has a sheet resistance of 0.7-30 Ohms/square. A surface of the region comprises a surface portion (7-25 percent) of the plate. A horizontal spacing between the two adjacent regions is 9.5-100 mm. The decoated lines are arranged outside of an A-field of view. The disc or the single disc has a permittivity number of 6-8. An independent claim is included for a method for preparing a disc.

Classifications:

International (IPC 8-9): B32B17/10 B6011/00 C03C17/06 C03C17/23 H01Q1/12 H01Q1/32 H01Q15/00 (Advanced/Invention)
CPC: C03C17/06 C03C17/23 B32B17/10761 B32B17/10036 B32B17/10018 B32B17/10183 B32B17/1077 B32B17/10788 B32B2327/12 B32B2367/00



Family:

Publication number	Publication date	Application number	Application date
DE502011002995 D1	20140618	DE201150002995T	20111027
EP2586610 A1	20130501	EP20110186834	20111027
EP2586610 B1	20140507	EP20110186834	20111027
ES2466569 T3	20140610	ES20110186834T	20111027

Priority:

EP20110186834 20111027

Probable Assignee: SAINT GOBAIN

Assignee(s): (std): SAINT GOBAIN

Assignee(s): SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): DEGEN CHRISTOPH ; DROSTE STEFAN ; ROUSSELET NOEMIE ; STELLING BERND

Agent(s): LENDVAI TOMAS DIPL CHEM DRRERNAT; LENDVAI TOMAS; DE ELZABURU ALBERTO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: GLASS PANE CONSTRUCTION

Abstract: The present invention relates to a glass pane construction, particularly bullet proof glass pane, to be used in a motor vehicle, having several transparent panes and layers made of glass, ceramic or synthetic material, which are connected in a layered manner connected to each other in a laminate, electrical controllable or switchable electrochromic layer means for electrical controlling or switching of the light transparency of the glass pane construction or of the bullet proof pane, wherein a laminar transparent UV filtering layer means for filtering of striking ultraviolet (UV) radiation is provided so that none or only a part of the UV radiation passes to the electrochromic layer means.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B60J3/04 C03C27/12

F41H5/04 G02B1/00 G02B1/04 G02B1/10 G02B5/22

G02F1/153 (Advanced/Invention)

CPC: B60J3/04 G02B5/22 B32B17/10458 B32B2369/00 G02F1/1533

G02F2001/1536 G02F2201/086 B32B17/10174 B32B27/08 G02B5/208

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B32B17/10788 B32B17/10045 B32B17/10504 B32B17/10513

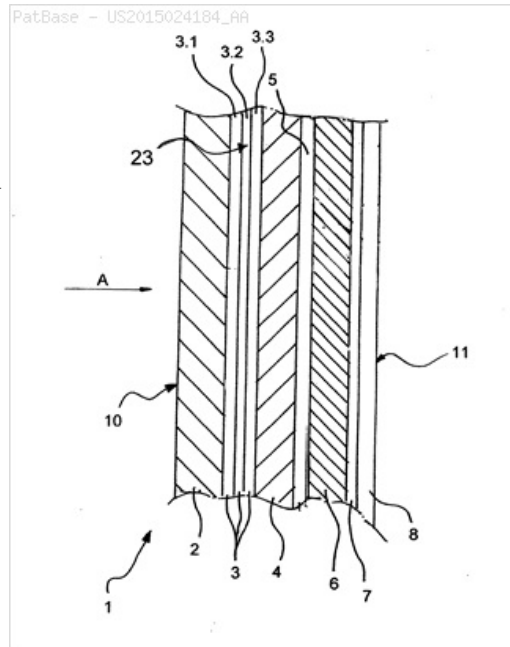
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Y10T428/31601 Y10T428/31616 Y10T428/3163 Y10T428/31649

Y10T428/24983

US: 428/217 428/412 428/423.1 428/425.6 428/426 428/430 428/437

428/442

**Family:**

Publication number	Publication date	Application number	Application date
BR112014012710 A2	20170613	BR20141112710	20120928
BR112014012710 A8	20170613	BR20141112710	20120928
BR112014012710 A8	20170620	BR20141112710	20120928
CO7020903 A2	20140811	CO20140158749	20140722
DE102011122199 A1	20130627	DE201110122199	20111223
DE102012002661 A1	20130814	DE201210002661	20120210
EP2794264 A1	20141029	EP20120780411	20120928
US2015024184 AA	20150122	US20120367754	20120928
WO13091743 A1	20130627	WO2012EP04078	20120928

Priority:

DE201110122199 20111223

DE201210002661 20120210

WO2012EP04078 20120928

Probable Assignee: ISOCLIMA SPA

Assignee(s): (std): ISOCLIMA SPA

Assignee(s): ISOCLIMA S P A

Inventor(s): (std): BERTOLINI ALBERTO ; ALBERTO BERTOLINI

Agent(s): SEITZ RALF HANS FRANK; SEITZ RALF

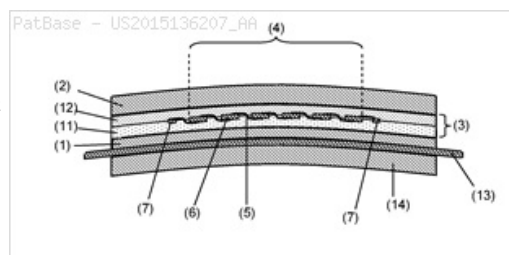
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Title: ROOF PANEL COMPRISING AN INTEGRATED PHOTOVOLTAIC MODULE

Abstract: A roof panel with an integrated photovoltaic module is discussed. The roof panel has at least a substrate and an outer pane, which are laminarily bonded to each other via a thermoplastic layer, and embedded in the thermoplastic layer, at least one photovoltaic system that contains at least two strip-shaped solar cells that are connected in series via at least one electrically conductive connecting element.

Classifications:

International (IPC 8-9): B32B17/10 B60J7/00 H01L31/042 H01L31/048 H01L31/05 H01L31/18 H02S10/40 (Advanced/Invention)
CPC: Y02E10/50 B62D25/06 H01L31/0504 B62D29/043 B32B17/10018 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10889 B32B2327/12 H02S10/40 H01L31/0481 H01L31/1876 B32B17/10036 Y02B10/12 H01L31/048 H01L31/0488 Y02T10/90
US: 136/251 438/66



Family:

Publication number	Publication date	Application number	Application date
■ CN104364080 A	20150218	CN201380029542	20130517
■ CN104364080 B	20170623	CN201380029542	20130517
■ EP2855146 A1	20150408	EP20130723776	20130517
■ JP2015520516 T2	20150716	JP20150515458T	20130517
■ JP2017163171 A2	20170914	JP20170125093	20170627
■ KR101795126 B1	20171107	KR20147033852	20130517
■ KR20150013669 A	20150205	KR20147033852	20130517
■ US2015136207 AA	20150521	US20130400464	20130517
■ WO13182399 A1	20131212	WO2013EP60246	20130517

Priority:

EP20120170877 20120605 EP20130723776 20130517 WO2013EP60246 20130517
JP20150515458T 20130517 JP20170125093 20170627

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SA

Assignee(s): SAINT GOBAIN GLASS FRANCE SA

Inventor(s): (std): GIRON JEAN CHRISTOPHE ; MEULEN UWE VAN D ; NEUMANN DIRK ; NOSITSCHKA ANDREAS ; PRAST MARC OLIVER ; REMY PASCAL ; STOFFEL HARALD ; UWE VAN D MEULEN ; PASCAL REMY ; MARC OLIVER PRAST ; HARALD STOFFEL ; DIRK NEUMANN ; ANDREAS NOSITSCHKA

Inventor(s): UWE VAN DER MEULEN

Agent(s): GEBAUER DIETER EDMUND ; LENDVAI TOMAS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR LAMINATING THIN GLASS LAMINATES

Abstract: A process using a vacuum ring or vacuum bag to produce glass laminates with improved optical distortion and shape consistency using thin glass having a thickness not exceeding 1.0 by using a soak temperatures not exceeding 120 degrees centigrade or not exceeding 100 degrees centigrade and a vacuum not exceed about -0.6 bar. One or more assembled stacks of two glass sheets and a polymer interlayer being laminated may be stacked on a single reference mold and processed simultaneously in a single vacuum bag or vacuum ring. One more thin glass sheets may be placed on top the assembled stack(s) on the reference mold to protect the assembled stack from irregular forces applied by the vacuum bag or the vacuum ring.

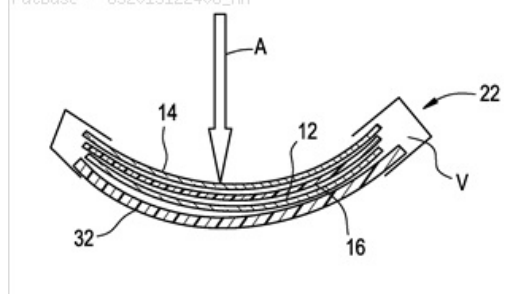
Classifications:

International (IPC 8-9): B32B17/10 B32B37/06 B32B37/10 B32B37/18 C03B23/035 C03C27/10 C03C27/12 (Advanced/Invention)

CPC: B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10853 B32B17/1088 B32B17/10889 B32B17/10972 B32B37/1018 C03B23/0357 C03C27/10 B32B37/06 B32B37/182 B32B2309/12 B32B2309/68 B32B2309/02 B32B2315/08 B32B2329/06 B32B2331/04 B32B2375/00 B32B2250/03 B32B2250/40 B32B2307/10 B32B17/10036 Y10T156/1044

US: 156/222 156/285

PatBase - US2015122406_HH



Family:

Publication number	Publication date	Application number	Application date
EP2858822 A1	20150415	EP20130729888	20130606
JP2015521575 T2	20150730	JP20150516206T	20130606
JP2016175835 A2	20161006	JP20160082743	20160418
JP5981647 B2	20160831	JP20150516206T	20130606
US2015122406 AA	20150507	US20130405668	20130606
WO13184904 A1	20131212	WO2013US44493	20130606

Priority:

US20120657272P 20120608 JP20150516206T 20130606 WO2013US44493 20130606
US20130405668 20130606 JP20160082743 20160418

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING INC ; FISHER WILLIAM KEITH ; MOORE MICHAEL JOHN ; MOYER STEVEN LUTHER ; SHENG HUAN HUNG ; SMITH LARRY GENE

Inventor(s): (std): FISHER WILLIAM KEITH ; MOORE MICHAEL JOHN ; MOYER STEVEN LUTHER ; SHENG HUAN HUNG ; SMITH LARRY GENE ; WILLIAM KEITH FISHER ; STEVEN LUTHER MOYER ; MICHAEL JOHN MOORE ; LARRY GENE SMITH

Agent(s): OLDROYD RICHARD DUNCAN; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR LAMINATING THIN GLASS LAMINATES

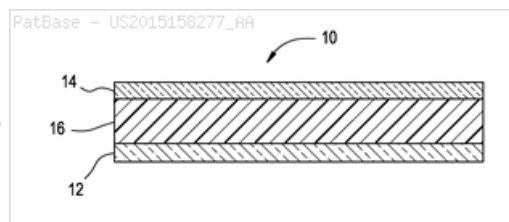
Abstract: A process for producing glass laminates including at least one sheet of glass having a thickness not exceeding 1.0 mm with reduced optical distortion and shape consistency. A pre-laminate stack of two glass sheets and a polymer interlayer are stacked between two buffer plates that are formed nominally to the desired shape of the laminate mold. The pre-laminate stack is held between the buffer plates while a vacuum is applied to the edges of the pre-laminate stack and the stack is heated to a temperature somewhat above the softening temperature of the interlayer to de-air and tack the interlayer to the two glass sheets forming the desired shaped laminate with reduced optical distortion.

Classifications:

International (IPC 8-9): B32B17/10 B32B37/06 B32B37/10 B32B37/18 C03B23/03 C03C27/12 (Advanced/Invention)

CPC: B32B17/10935 B32B37/06 B32B37/1018 B32B37/18 B32B2315/08 B32B2329/06 B32B17/10036 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10844 B32B37/1009 B32B2309/02 B32B2309/105 B32B2309/12 B32B2331/04 B32B2375/00 B32B2605/08

US: 156/102 156/104



Family:

Publication number	Publication date	Application number	Application date
EP2861542 A1	20150422	EP20130729910	20130612
JP2015526367 T2	20150910	JP20150517379T	20130612
JP5981648 B2	20160831	JP20150517379T	20130612
US2015158277 AA	20150611	US20130406715	20130612
US9925743 BB	20180327	US20130406715	20130612
WO13188489 A1	20131219	WO2013US45317	20130612

Priority:

US20120659533P 20120614 US20130406715 20130612 WO2013US45317 20130612

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING INC ; FISHER WILLIAM KEITH ; FRISKE MARK STEPHEN ; RICKERL PAUL GEORGE ; SHENG HUAN HUNG

Inventor(s): (std): FISHER WILLIAM KEITH ; FRISKE MARK STEPHEN ; RICKERL PAUL GEORGE ; SHENG HUAN HUNG

Agent(s): GUNNING JACK PETER; FRANK BROCK; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLASS-RESIN LAMINATE

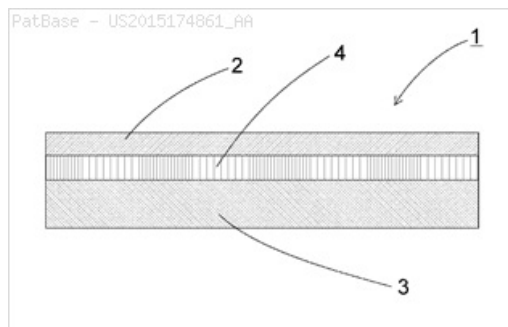
Abstract: Provided is a glass-resin laminate (1) having a laminating structure of at least three layers, the glass-resin laminate (1) including: a layer including a glass sheet (2); a layer including a resin layer (3); and an adhesive layer (4) for bonding the glass sheet (2) and the resin layer (3), in which a spectral transmittance of the adhesive layer (4) in at least a wavelength range of from 430 nm to 680 nm is 90 percent or more.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/08 B32B7/12 C03B17/06 C03C27/12 (Advanced/Invention); C03B17/06 (Advanced/Non-invention)

CPC: B32B17/10678 B32B17/1077 B32B2333/08 B32B2369/00 B32B7/12 B32B17/10752 B32B17/10743 B32B27/08 B32B2307/412 B32B2457/20 B32B17/10036 B32B17/10018 B32B2307/712 B32B17/10 Y10T428/266 Y10T428/269 Y10T428/31507

US: 428/337 428/339 428/412 428/426



Family:

Publication number	Publication date	Application number	Application date
■ CN104395071 A	20150304	CN201380032237	20130704
■ CN104395071 B	20160323	CN201380032237	20130704
■ EP2871055 A1	20150513	EP20130813039	20130704
■ EP2871055 A4	20160309	EP20130813039	20130704
■ JP2014012373 A2	20140123	JP20120151069	20120705
■ JP6186675 B2	20170830	JP20120151069	20120705
■ KR20150035532 A	20150406	KR20147031882	20130704
■ TW201412520 A	20140401	TW20130124098	20130705
■ TWI583548 B	20170521	TW20130124098	20130705
■ US2015174861 AA	20150625	US20130411691	20130704
■ WO14007313 A1	20140109	WO2013JP68335	20130704

Priority:

JP20120151069 20120705 WO2013JP68335 20130704

Probable Assignee: NIPPON ELECTRIC GLASS CO LTD

Assignee(s): (std): NIPPON ELECTRIC GLASS CO

Assignee(s): NIPPON ELECTRIC GLASS CO LTD

Inventor(s): (std): HASEGAWA YOSHINORI ; NODA TAKAYUKI

Agent(s): TETZNER MICHAEL; SHIROMURA KUNIHICO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MULTI-LAYERED DECORATIVE PANEL AND METHOD FOR MANUFACTURING A MULTI-LAYERED DECORATIVE PANEL

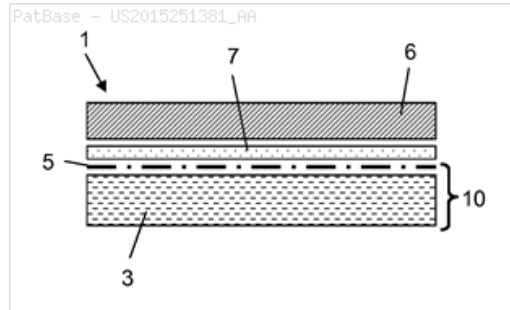
Abstract: A multi-layered decorative panel comprises a digitally printed rigid panel including a digitally printed image digitally printed onto a rigid panel and at least one other rigid panel. At least one of the rigid panels is transparent with a solid adhesive layer adapted to bond the digitally printed rigid panel and the other rigid panel together. The digitally printed image faces the solid adhesive layer, and the solid adhesive layer is composed of a cured adhesive resin that is liquid at a temperature of between 20 degrees centigrade and 25 degrees centigrade and when being applied.

Classifications:

International (IPC 8-9): B32B15/082 B32B15/09 B32B15/20 B32B17/06 B32B17/10 B32B37/16 B32B7/12 B41M5/00 B44C5/04 B44F1/06 C03C27/10 (Advanced/Invention)

CPC: B32B7/12 B32B17/064 B32B15/20 B32B15/082 B32B15/09 B32B37/16 B32B2255/26 B32B2451/00 B32B2255/28 B32B2307/4023 B32B2255/06 B32B2305/72 B32B2307/75 B32B17/10018 B32B17/10036 B32B17/10256 B32B17/10266 B32B17/10284 B32B17/10733 B32B17/10743 B32B17/1077 B32B17/10779 B32B17/10798 B32B17/10807 B32B2323/00 B32B2327/06 B32B2333/04 B32B2369/00 B32B2375/00 B41M5/0047 B41M5/007 B44C5/0407 B44F1/066 C03C27/10 Y10T428/24868 Y10T428/24884

US: 1/1 156/327 428/203 428/205



Family:

Publication number	Publication date	Application number	Application date
BR112015006291 A2	20170704	BR20151106291	20130604
CN104661978 A	20150527	CN201380049826	20130604
CN104661978 B	20180213	CN201380049826	20130604
EP2711346 A1	20140326	EP20120185943	20120925
EP2900615 A1	20150805	EP20130726554	20130604
US2015251381 AA	20150910	US20130430972	20130604
US9434132 BB	20160906	US20130430972	20130604
WO14048589 A1	20140403	WO2013EP61520	20130604

Priority:

EP20120185943 20120925 EP20130726554 20130604 WO2013EP61520 20130604

Probable Assignee: FALCO TECHNOLOGIES BVBA

Assignee(s): (std): FALCO TECH BVBA ; FALCO TECHNOLOGIES BVBA

Inventor(s): (std): ANTONIUS WILHELMUS VAN DUFFEL ; BART VAN DUFFEL ; VAN DUFFEL ANTONIUS WILHELMUS ; VAN DUFFEL BART

Agent(s): IP HILLS NV; PLAS AXEL IVO MICHEL; WORKMAN NYDEGGER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHODS FOR PRODUCING ION EXCHANGED GLASS AND RESULTING APPARATUS

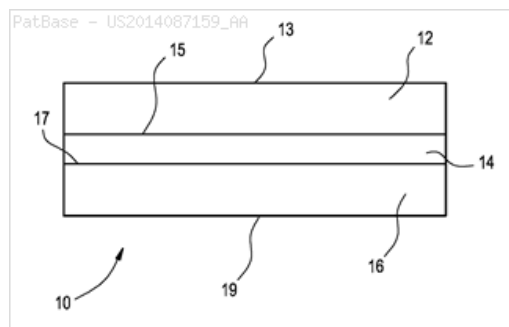
Abstract: A laminate structure having a first glass layer, a second glass layer, and at least one polymer interlayer intermediate the first and second glass layers. The first glass layer is comprised of a thin, chemically strengthened glass having a surface compressive stress of between about 250 MPa and about 350 MPa and a depth of layer (DOL) of compressive stress greater than about 60 micro m. The second glass layer can also be comprised of a thin, chemically strengthened glass having a surface compressive stress of between about 250 MPa and about 350 MPa and a depth of layer (DOL) of compressive stress greater than about 60 micro m.

Classifications:

International (IPC 8-9): B32B17/00 B32B17/10 B32B3/26 B32B7/02
C03C15/00 C03C21/00 C03C23/00 C03C27/10 C03C27/12 C03C3/085
C03C3/095 (Advanced/Invention)

CPC: B32B17/10743 B32B17/1077 B32B17/10788 B32B7/02
B32B2307/50 C03C3/085 C03C3/095 C03C27/10 Y10T428/2495
Y10T428/24967 Y10T428/24983 Y10T428/269 Y10T428/315
B32B17/10119 B32B17/10036 B32B17/10761 C03C15/00 B32B3/263
B32B2250/03 B32B2250/40 B32B2605/006 B32B2419/00 C03C21/002
B32B17/10137

US: 1/1 428/213 428/215 428/217 428/339 428/410 65/30.14



Family:

Publication number	Publication date	Application number	Application date
CN104812572 A	20150729	CN201380050054	20130923
CN105492205 A	20160413	CN201480046872	20140623
EP2900471 A1	20150805	EP20130771726	20130923
EP3013580 A1	20160504	EP20140740069	20140623
IN11660DN2015 A	20160513	IN2015DN11660	20151222
JP2015534536 T2	20151203	JP20150533246T	20130923
JP2016528139 T2	20160915	JP20160521881T	20140623
JP6080279 B2	20170215	JP20150533246T	20130923
KR20150060782 A	20150603	KR20157009904	20130923
KR20160024947 A	20160307	KR20167001806	20140623
US2014087159 AA	20140327	US20130926461	20130625
US2014087193 AA	20140327	US20120626958	20120926
US2016280591 AA	20160929	US20160178901	20160610
US9387651 BB	20160712	US20130926461	20130625
WO14052229 A1	20140403	WO2013US61164	20130923
WO14209861 A1	20141231	WO2014US43619	20140623

Priority:

US20120626958 20120926 US20130926461 20130625 WO2013US61164 20130923
WO2014US43619 20140623 US20160178901 20160610

Probable Assignee: CORNING INC

Assignee(s): (std): CITES JEFFREY SCOTT ; CLEARY THOMAS MICHAEL ; CORNING CO LTD ; CORNING INC ; COUILLARD JAMES GREGORY ; MOORE MICHAEL JOHN

Inventor(s): (std): CITES JEFFREY SCOTT ; CLEARY THOMAS MICHAEL ; COUILLARD JAMES GREGORY ; HUTEN TIMOTHY SCOTT ; JAIN ANURAG ; MARCELLUS BRENNIA ; MARCELLUS BRENNIA ELIZABETH ; MOORE MICHAEL JOHN

Agent(s): KINGSBURY OLIVER WILLIAM; SCHEUERMANN ERIK; PAYAL A; HARDEE RYAN T

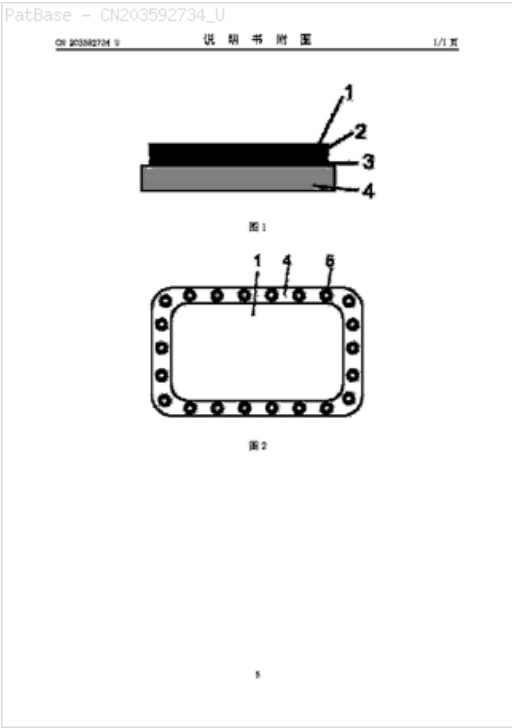
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HIGH-SPEED TRAIN WINDSHIELD GLASS

Abstract: The utility model provides a high-speed train windshield glass, which can meet the transmittance requirement of the windshield glass of a driving cab of a high-speed train, has good electromagnetic shielding and excellent anti-collision performance and is simple in structure, based on the characteristics of high anti-collision performance of the high-speed train windshield glass. The windshield glass comprises a bearing layer, a middle film layer and a surface layer, the bearing layer adopts PC polycarbonate with threaded holes and is integrally formed through injection molding, the middle film layer can be either PVB or PU, a thermistor can be arranged in the film, and the surface layer of the windshield glass adopts chemical enhanced alumina silicate glass with an ITO film plated on the inner surface.

Classifications:

International (IPC 8-9): B32B17/06 B32B27/06
B32B9/04 (Advanced/Invention)
CPC: B32B17/10761 B32B17/10018 B32B17/1077 B32B2369/00
B32B2605/10



Family:

Publication number	Publication date	Application number	Application date
■ CN203592734 U	20140514	CN201320692291U	20131105

Priority:

CN201320692291U 20131105

Probable Assignee: BEIJING INST AERONAUTICAL MAT

Assignee(s): (std): BEIJING INST AERONAUTICAL MAT ; BEIJING INST OF AERONAUTICAL MATERIALS AVIATION IND OF CHINA CORP

Inventor(s): (std): GUO XINTAO ; JIANG LIANGBAO ; LI LEI ; LI XIAOYU ; YAN YUE

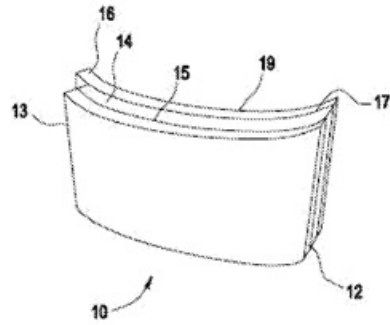
Title: METHODS FOR LOCALIZED ANNEALING OF CHEMICALLY STRENGTHENED GLASS

Abstract: A method of providing locally annealed regions for a glass article. The method includes providing a strengthened glass article having a first surface compressive stress and a first depth of layer of compressive stress, annealing the strengthened glass article to achieve a second surface compressive stress and a second depth of layer of compressive stress, and masking a portion of the glass article during the annealing step to achieve a third surface compressive stress and a third depth of layer of compressive stress in the masked portion. The glass article can be a laminate structure comprising a first glass layer, a second glass layer, and at least one polymer interlayer intermediate the first and second glass layers. The glass layers can include differing surface compressive stresses depths of layer of compressive stress.

Classifications:

International (IPC 8-9): B32B17/10 C03B25/00 C03B25/02 C03B27/00 C03C21/00 C03C23/00 (Advanced/Invention)
CPC: B32B17/10091 C03C23/007 C03C2218/34 C03B25/025 B32B17/10036 B32B17/10137 C03C21/002 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788
US: 428/215

PatBase - US2016207819_AA



Family:

Publication number	Publication date	Application number	Application date
CN105683118 A	20160615	CN201480058878	20140821
EP3038990 A1	20160706	EP20140783687	20140821
US2016207819 AA	20160721	US20140913904	20140821
WO15031148 A1	20150305	WO2014US52025	20140821

Priority:

US20130869973P 20130826 US20140913904 20140821 WO2014US52025 20140821

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): CLEARY THOMAS MICHAEL ; COUILLARD JAMES GREGORY ; EARLY KINTU ODINGA X ; HUTEN TIMOTHY SCOTT

Agent(s): SCHEUERMANN ERIK; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR LOCALIZED ANNEALING OF CHEMICALLY STRENGTHENED GLASS

Abstract: A method of providing locally annealed regions for a glass article comprising: (a) providing a strengthened glass article having a first surface compressive stress and a first depth of layer of compressive stress; (b) targeting first portions of the glass article on a first side thereof; (c) annealing the targeted first portions to a second surface compressive stress and a second depth of layer of compressive stress; and (d) repeating steps (b) and (c) to create a pattern of annealed portions of the glass article on the first side thereof. Targeted annealing can be done e.g. by focusing a laser or using microwave energy or an induction source. A method for making a laminate structure comprising a first glass layer (12), a second glass layer (16), and at least one polymer interlayer (14) intermediate the first and second glass layers. The first glass layer (12) can be comprised of a strengthened glass having a first portion with a first surface compressive stress and a first depth of layer of compressive stress and a second portion with a second surface compressive stress and a second depth of layer of compressive stress. In other embodiments, the second glass layer (16) can be comprised of a strengthened glass having a third portion with a third surface compressive stress and a third depth of layer of compressive stress and a fourth portion with a fourth surface compressive stress and a fourth depth of layer of compressive stress.

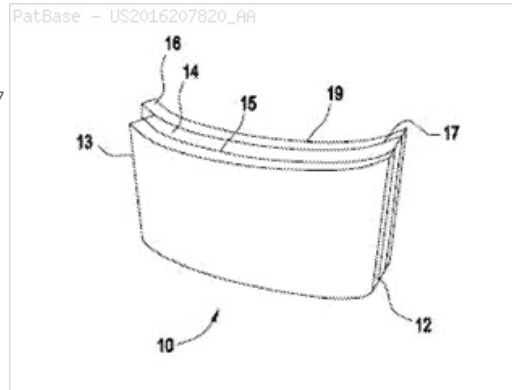
Classifications:**International (IPC 8-9):** B32B17/10 C03B25/08 C03C21/00

C03C23/00 (Advanced/Invention)

CPC: C03C23/0065 B32B2605/00 C03B25/08 B32B17/10091

B32B17/10137 C03C23/0025 B32B17/10743 B32B17/10761 B32B17/1077

B32B17/10788 C03C21/00

US: 428/215**Family:**

Publication number	Publication date	Application number	Application date
■ CN105705467 A	20160622	CN201480058871	20140821
■ EP3038979 A1	20160706	EP20140758474	20140821
■ US2016207820 AA	20160721	US20140913890	20140821
■ US2018141846 AA	20180524	US20180873188	20180117
■ US9908805 BB	20180306	US20140913890	20140821
■ WO15031151 A1	20150305	WO2014US52037	20140821

Priority:

US20130869962P 20130826 US20140913890 20140821 WO2014US52037 20140821
US20160913890 20160223 US20180873188 20180117

Probable Assignee: CORNING INC**Assignee(s):** (std): CORNING CO LTD ; CORNING INC**Assignee(s):** CORNING INCORPORATION**Inventor(s):** (std): CLEARY THOMAS MICHAEL ; FRISKE MARK STEPHEN ; WAGNER ROBERT STEPHEN**Agent(s):** SCHEUERMANN ERIK; F BROCK; HARDEE RYAN T

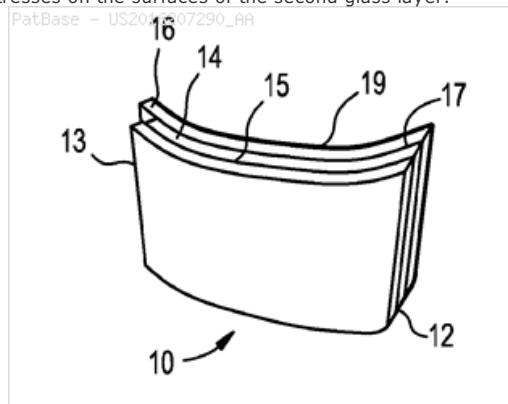
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW
MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: THIN GLASS LAMINATE STRUCTURES

Abstract: A laminate structure having a first glass layer, a second glass layer, and at least one polymer interlayer intermediate the first and second glass layers. In some embodiments, the first glass layer can be comprised of a strengthened glass having first and second surfaces, the second surface being adjacent the interlayer and chemically polished and the second glass layer can be comprised of a strengthened glass having third and fourth surfaces, the fourth surface being opposite the interlayer and chemically polished and the third surface being adjacent the interlayer and having a substantially transparent coating formed thereon. In another embodiment, the first glass layer is curved and the second glass layer is substantially planar and cold formed onto the first glass layer to provide a difference in surface compressive stresses on the surfaces of the second glass layer.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B37/10 B32B37/18
B60J1/00 C03C15/00 C03C21/00 C03C27/12 (Advanced/Invention)
CPC: B32B17/10174 B32B17/10761 B32B17/10119 B32B17/10743
B32B17/1077 B32B17/10788 B32B17/10366 B32B37/182 B32B2398/00
B32B2315/08 B32B2307/412 B32B2307/558 B32B17/10036
B32B17/10091 B32B17/10137 B32B17/10146 B32B2605/006 B32B17/064
B32B17/06 B32B37/10 B32B2329/06
US: 428/215

**Family:**

Publication number	Publication date	Application number	Application date
■ CN105705330 A	20160622	CN201480059991	20140828
■ EP3038827 A2	20160706	EP20140762187	20140828
■ JP2016530204 T2	20160929	JP20160537845T	20140828
■ KR20160046889 A	20160429	KR20167007845	20140828
■ US2016207290 AA	20160721	US20140915437	20140828
■ WO15031594 A2	20150305	WO2014US53122	20140828
■ WO15031594 A3	20150723	WO2014US53122	20140828

Priority:

US20130871602P 20130829 US20140915437 20140828 WO2014US53122 20140828

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): CLEARY THOMAS MICHAEL ; EARLY KINTU ODINGA X ; FRISKE MARK STEPHEN ; HART SHANDON DEE ; HU GUANGLI ; MARCELLUS BRENNAN ELIZABETH ; ZHANG CHUNHE

Agent(s): GREENE SIMON KENNETH; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COMPOSITE PANE, COMPOSED OF A POLYMERIC PANE AND A GLASS PANE

Abstract: A composite pane for vehicles is described. The composite pane comprising a polymeric pane, which has a thickness of 1.5 to 10 mm, and a glass pane, which has a thickness less than or equal to 1 mm and is connected to the polymeric pane in a planar manner, wherein the polymeric pane contains at least polycarbonate (PC) and/or polymethyl methacrylate (PMMA) and the glass pane is a chemically tempered glass pane.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/40 B32B7/04 B60J1/00 B60J1/02 B60J1/08 B60J1/18 B60J7/00 C03C21/00

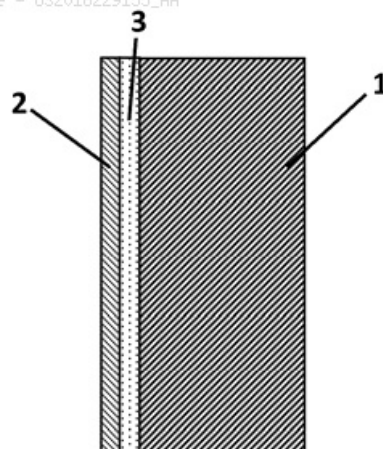
C03C27/12 (Advanced/Invention);

B32B17/10 (Core/Invention)

CPC: B32B17/10119 B32B17/10045 B32B27/40 B32B7/04 B32B2307/102 B32B2333/12 B32B2605/006 B60J1/02 B60J1/08 B60J1/18 B60J7/00 B32B17/10018 B32B17/10137 B32B17/1077 B32B2369/00 B32B17/10128 B32B17/10752 B32B17/10779

US: 29/428

PatBase - US2016229155_AA



Family:

Publication number	Publication date	Application number	Application date
BR112016005952 A2	20170801	BR20161105952	20140822
CA2925048 AA	20160322	CA20142925048	20140822
CN105658426 A	20160608	CN201480058164	20140822
EA201690832 A1	20160831	EA20160090832	20140822
EP3060393 A1	20160831	EP20140758821	20140822
ID201705954 A	20170602	ID2016P0002721	20140822
IN201637008681 A	20160701	IN201637008681	20160312
JP2016540715 T2	20161228	JP20160525870T	20140822
KR20160060114 A	20160527	KR20167010299	20140822
MX2016005141 A1	20160718	MX20160005141	20140822
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WO15058884 A1	20150430	WO2014EP67902	20140822

Priority:

EP20130189858 20131023

EP20140758821 20140822

WO2014EP67902 20140822

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SA ; SAINT GOBAIN GLASS FRANCE S A

Assignee(s): SAINT GOBAIN GLASS FRANCE SA ; SIENERTH SANDRA ; GY RENE ; KREMERS STEPHAN

Inventor(s): (std): STEPHAN KREMERS ; SANDRA SIENERTH ; RENE GY ; SIENERTH SANDRA ; KREMERS STEPHAN ; GY RENE

Agent(s): GOUDREAU GAGE DUBUC ; GEBAUER DIETER EDMUND ; DR TOETI HERATY N ROOSSENO ; LENDVAI TOMAS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLASS LAMINATE STRUCTURES FOR HEAD-UP DISPLAY SYSTEM

Abstract: A glass laminate structure comprising a non-strengthened external glass sheet, a strengthened internal glass sheet, and at least one polymer interlayer intermediate the external and internal glass sheets. The internal glass sheet can have a thickness ranging from about 0.3 mm to about 1.5 mm, the external glass sheet can have a thickness ranging from about 1.5 mm to about 3.0 mm, and the polymer interlayer can have a first edge with a first thickness and a second edge opposite the first edge with a second thickness greater than the first thickness. Other embodiments include external and internal strengthened glass sheets as well as an external strengthened glass sheet and an internal non-strengthened glass sheet.

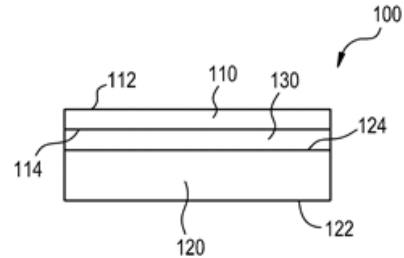
Classifications:

International (IPC 8-9): B32B17/00 B32B17/06 B32B17/10 B32B27/30 B32B3/26 B60J1/00 C03C21/00 C03C27/12 G02B27/01 G02B27/02 (Advanced/Invention); C03C27/12 (Advanced/Non-invention)

CPC: B32B17/064 B32B17/10568 Y10T428/24612 B32B17/10761 C03C21/002 B32B2457/20 B32B17/10137 B32B17/10036 B32B17/10119 G02B27/0101 G02B2027/0121 G02B2027/0194 B32B27/306 B32B3/263 B32B2605/00 B32B17/10743 B32B17/1077 B32B17/10788 B32B2605/08 B32B9/045 B32B27/06 B32B27/30 B32B27/365 B32B27/40 B32B2270/00 B32B2307/558 B32B2307/584 B32B2307/732 B32B2605/006 G02B2027/0196

US: 428/172 428/215

PatBase - US2015251377_RH



Family:

Publication number	Publication date	Application number	Application date
■ CN106255592 A	20161221	CN201580021799	20150306
■ EP3113949 A1	20170111	EP20150710079	20150306
■ JP2017512175 T2	20170518	JP20160555983T	20150306
■ KR20160130462 A	20161111	KR20167027638	20150306
■ TW201542356 A	20151116	TW20150107238	20150306
■ US2015251377 AA	20150910	US20150638224	20150304
■ US2016257095 AA	20160908	US20160156620	20160517
■ WO15134836 A1	20150911	WO2015US19101	20150306

Priority:

US20140949359P 20140307 US20150638224 20150304 WO2015US19101 20150306
US20160156620 20160517

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): CLEARY THOMAS MICHAEL ; GOFORTH DOUGLAS EDMON ; PRIESTLEY RICHARD SEAN ; WANG CHUAN CHE ; WANG CHUAN CHE ; ZAKHARIAN ARAMAIIS ; ZAKHARIAN ARAMAIIS ROBERT

Agent(s): SCHEUERMANN ERIK ; PATEL PAYAL A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

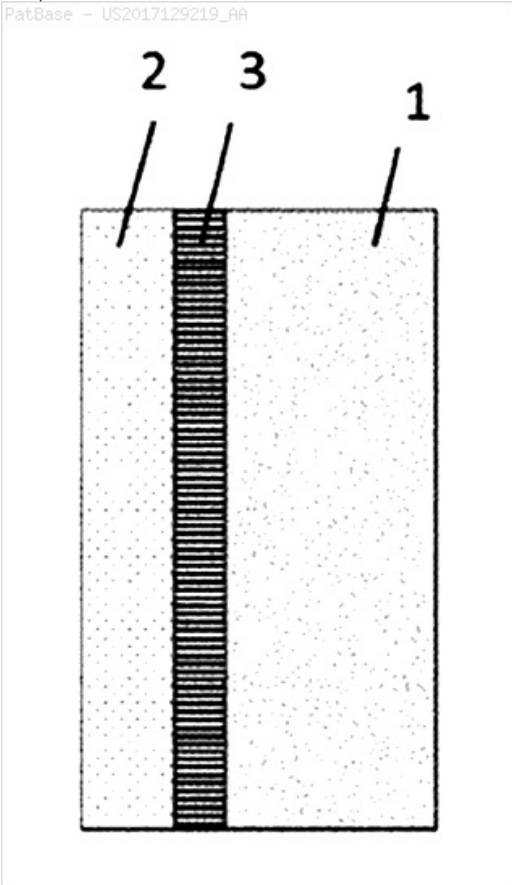
Title: COMPOSITE PANE COMPOSED OF A POLYMERIC PANE AND A GLASS PANE

Abstract: A vehicular composite pane including a polymeric pane with a thickness of 1.5 mm to 10 mm and a glass pane with a thickness of 0.3 mm to 1 mm areally bonded to the polymeric pane. The polymeric pane contains at least polycarbonate (PC) and/or polymethyl methacrylate (PMMA). The glass pane is a non-prestressed pane.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/08 B32B27/36 B32B27/40 B32B7/12 B60J1/00 C03C27/12 (Advanced/Invention)

CPC: B60J1/00 B32B7/12 B32B2605/006 B32B17/1077 B32B17/10018 B32B17/10036 B32B17/10761 B32B17/10788



Family:

Publication number	Publication date	Application number	Application date
■ CN106457792 A	20170222	CN201580031371	20150505
■ EP3154783 A1	20170419	EP20150722496	20150505
■ MX2016016282 A1	20170331	MX20160016282	20150505
■ US2017129219 AA	20170511	US20150317825	20150505
■ WO15188982 A1	20151217	WO2015EP59797	20150505

Priority:

EP20140172077 20140612 WO2015EP59797 20150505

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): DOROTHEA KETTNER ; KETTNER DOROTHEA ; KREMERS STEPHAN ; SANDRA SIENERTH ; SIENERTH SANDRA ; STEFAN UEBELACKER ; STEPHAN KREMERS ; UEBELACKER STEFAN

Agent(s): GEBAUER DIETER EDMUND; LENDVAI TOMAS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: REDUCED WEIGHT ARMOR SYSTEMS AND METHODS OF MANUFACTURING THE SAME

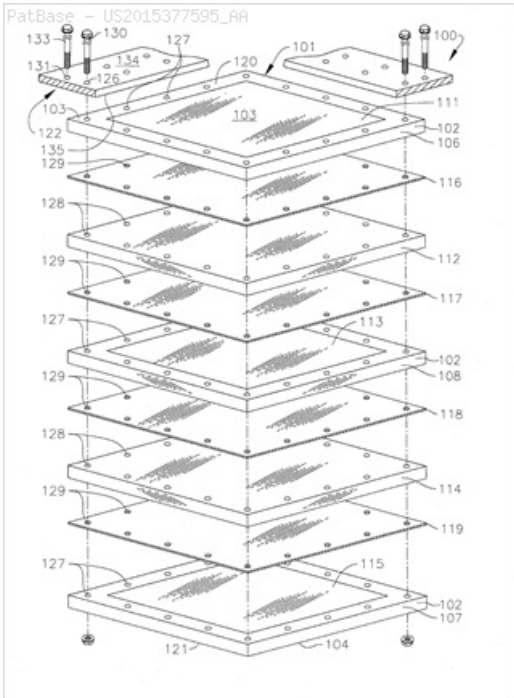
Abstract: An armor system configured to be coupled to a frame surrounding a window in a vehicle or other structure, such as a building. The armor system may be configured to provide any desired ballistics protection rating. The armor system includes a ballistics-grade armor panel and at least one insert embedded in the ballistics-grade armor panel. The insert extends around at least a portion of a periphery of the ballistics-grade armor panel. The one or more inserts may be configured to reduce the parasitic weight of the armor system.

Classifications:

International (IPC 8-9): B32B17/10 B32B37/06 B32B37/10 F41H5/013 F41H5/04 F41H5/26 F41H7/04 (Advanced/Invention); B32B37/04 (Advanced/Non-invention)

CPC: F41H5/0407 B32B2307/546 B32B2307/558 B32B2311/00 B32B2323/04 B32B2369/00 B32B2323/10 B32B2375/00 B32B2329/06 B32B2331/04 B32B2367/00 B32B2571/02 F41H5/0428 B32B17/10045 B32B17/10293 B32B17/10761 B32B17/1077 B32B17/10788 B32B37/04 B32B2309/02 B32B2315/08 F41H5/013 F41H5/263

US: 156/285 156/89.11 156/89.28 89/36.02



Family:

Publication number	Publication date	Application number	Application date
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Priority:

US20140318195 20140627

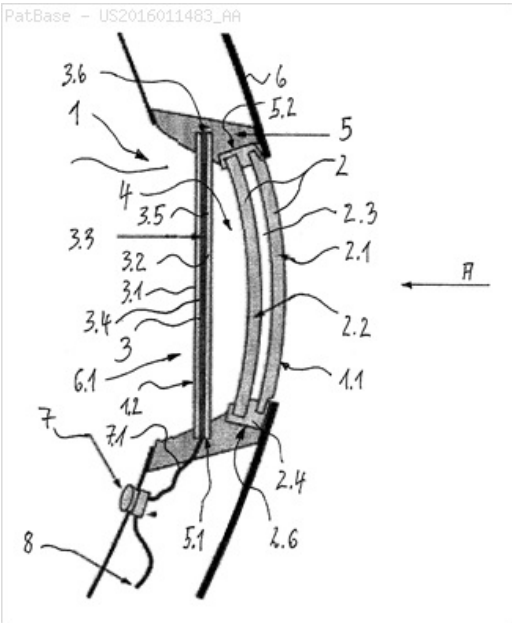
Probable Assignee: PPG IND OHIO INC
Assignee(s): (std): PPG IND OHIO INC
Inventor(s): (std): PALERMO DAVID ; SCARINCI CARLO
Agent(s): LEWIS ROCA ROTHGERBER CHRISTIE LLP

Title: SWITCHABLE WINDOW

Abstract: The present invention refers to a switchable window, in particular for use in an aircraft, helicopter, or space vehicle, which comprises an outer pane construction subjected to sunlight, and an inner pane construction having an electrically switchable film for changing a color or transmittance of the switchable window, the outer pane construction covering at least an irradiated part of the inner pane construction, wherein the outer pane construction absorbs IR radiation of the sunlight and it absorbs or reflects UV radiation of the sunlight.

Classifications:

International (IPC 8-9): B32B17/10 B64C1/14 E06B9/24 G02F1/1333 G02F1/1334 G02F1/137 G02F1/153 G02F1/157 (Advanced/Invention)
CPC: G02F1/157 E06B9/24 B64C1/14 G02F1/1334 G02F1/133305 G02F1/137 G02F1/1533 E06B2009/2464 E06B2009/2411 E06B2009/2417 G02F2001/1536 B32B17/10036 B32B17/10532 B32B17/10761 B32B17/1077 B32B17/10788 B32B2369/00 B32B2375/00 B32B2605/18
US: 359/275



Family:

Publication number	Publication date	Application number	Application date
EP2965903 A1	20160113	EP20140425094	20140711
EP2965903 B1	20180905	EP20140425094	20140711
US2016011483 AA	20160114	US20150796845	20150710

Priority:

EP20140425094 20140711

Probable Assignee: ISOCLIMA SPA

Assignee(s): (std): ISOCLIMA SPA

Inventor(s): (std): BERTOLINI MARCO

Agent(s): SEITZ RALF HANS FRANK

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Title: THERMALLY TEMPERED GLASS AND METHODS AND APPARATUSES FOR THERMAL TEMPERING OF GLASS

Abstract: A strengthened glass sheet product as well as process and an apparatus for making the product. The process comprises cooling the glass sheet by non-contact thermal conduction for sufficiently long to fix a surface compression and central tension of the sheet. The process results in thermally strengthened glass sheets having improved breakage properties.

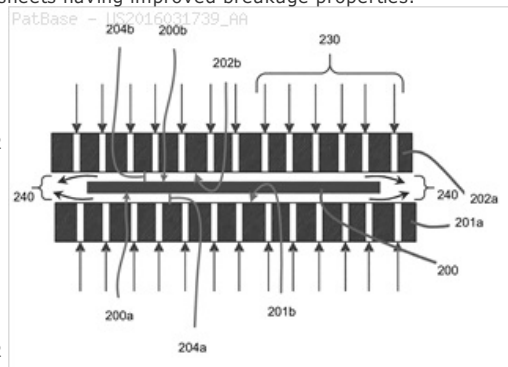
Classifications:

International (IPC 8-9): B32B17/10 C03B27/012 C03B27/016 C03B27/04 C03B27/044 C03B27/048 C03B27/052 C03B29/12 C03B29/16 C03B35/14 C03B35/24 C03C21/00 C03C23/00 C03C3/11 E04C2/54 E06B3/54 E06B3/66 E06B3/663 E06B3/67 G06F3/01 G06F3/041 (Advanced/Invention)

International (IPC 1-7): C03B27/04 C03B27/048 C03B27/052 C03B29/12 C03B29/16 C03B35/24 C03C3/11

CPC: C03B27/0413 C03B27/044 C03B27/04 C03C21/002 C03B27/052 C03B29/16 C03B35/24 C03C3/11 C03B27/012 C03B27/016 C03B27/0526 Y10T428/315 C03C23/007 E06B3/6715 G06F3/041 C03B35/147 B32B17/06 B32B17/10055 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 Y02P40/57 E06B3/66304 G06F3/016 B32B17/10302 E04C2/54 E06B3/6612 E06B3/66309 B32B17/10036 B32B17/10091 B32B17/101 B32B17/10752 C03C21/00 B32B2315/08 B32B2605/00 C03C3/078 C03C3/083 C03C3/085 C03C3/087 C03C3/095 E06B3/5409 E06B3/5436 C03B27/048 C03B29/12

US: 1/1 428/141 428/156 428/220 428/410 428/426 65/114 65/115 65/157 65/32.1 65/348 65/349



Family:

Publication number	Publication date	Application number	Application date
AU2015296243 AA	20160204	AU20150296243	20150730
BR112017002106 A2	20171121	BR20171102106	20150730
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CA2994236 AA	20180130	CA20162994236	20160728
CA2994284 AA	20180130	CA20162994284	20160801
CN106795036 A	20170531	CN201580053189	20150730
CN108025939 A	20180511	CN201680053655	20160728
CN108431725 A	20180821	CN201680054630	20160728
CN108431726 A	20180821	CN201680055715	20160801
EP3174835 A1	20170607	EP20150757030	20150730
EP3328803 A1	20180606	EP20160754030	20160728
EP3328807 A1	20180606	EP20160751079	20160728
EP3329348 A1	20180606	EP20160751081	20160728
EP3365750 A2	20180829	EP20160750337	20160801
IN201717004717 A	20170505	IN201717004717	20170209
IN201817003418 A	20180511	IN201817003418	20180130
IN201817004962 A	20180511	IN201817004962	20180209
JP2017523114 T2	20170817	JP20170505499T	20150730
KR20170036091 A	20170331	KR20177005630	20150730
KR20180033294 A	20180402	KR20187005874	20160801
KR20180033583 A	20180403	KR20187005873	20160728
KR20180035862 A	20180406	KR20187005875	20160728
KR20180036746 A	20180409	KR20187005865	20160728
MX2017001386 A1	20170821	MX20170001386	20150730
TW201623168 A	20160701	TW20150124988	20150731
TW201623169 A	20160701	TW20150124991	20150731
US2016031739 AA	20160204	US20150814232	20150730
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US10005691 BB	20180626	US20150814363	20150730
WO16019167 A1	20160204	WO2015US42955	20150730
WO16019171 A1	20160204	WO2015US42965	20150730
WO17019837 A1	20170202	WO2016US44401	20160728
WO17019840 A1	20170202	WO2016US44406	20160728
WO17019851 A1	20170202	WO2016US44445	20160728
WO17020040 A2	20170202	WO2016US45022	20160801
WO17020040 A3	20170309	WO2016US45022	20160801
WO17020041 A1	20170202	WO2016US45025	20160801

Priority:

US20140031856P 20140731	US20140074838P 20141104	US20150147289P 20150414
US20150814181 20150730	US20150814232 20150730	US20150814274 20150730
US20150814293 20150730	US20150814319 20150730	US20150814335 20150730
US20150814363 20150730	US20150814303 20150730	WO2015US42955 20150730
US20150236296P 20151002	US20150236296P 20151002	US20160286192P 20160122
US20160281971P 20160122	US20160288851P 20160129	US20160288669P 20160129
US20160288755P 20160129	US20160082872 20160328	WO2016US44401 20160728
WO2016US44406 20160728	WO2016US44445 20160728	WO2016US45022 20160801

Probable Assignee: CORNING INC**Assignee(s):** (std): CORNING CO LTD ; CORNING INC**Assignee(s):** LEZZI PETER JOSEPH ; MASCHMEYER RICHARD ORR ; WASSON KEVIN LEE ; THOMAS JOHN CHRISTOPHER**Inventor(s):** (std): LEZZI PETER JOSEPH ; MASCHMEYER RICHARD ORR ; THOMAS JOHN CHRISTOPHER ; WASSON KEVIN LEE ; RICHARD ORR MASCHMEYER ; PETER JOSEPH LEZZI ; KEVIN LEE WASSON ; JOHN CHRISTOPHER THOMAS**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; GOWLING WLG CANADA LLP; SCOTT MARK ANDREW; GREGORY V; BEAN GREGORY V; MAGAZINER RUSSELL S; WEGMANN ZACHARY J ET AL; WEGMANN ZACHARY J; PATEL PAYAL A**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

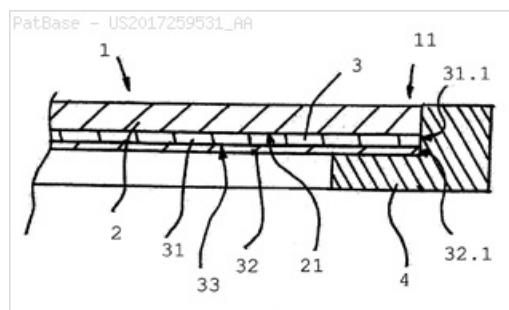
Title: GLASS COVER

Abstract: The present disclosure relates to a glass cover, particularly a glass cover used in a vehicle roof, which includes a glass pane, anti-shatter layer means arranged on an underside of the glass pane, and an encapsulation formed on an edge region of the glass pane wherein the anti-shatter layer means covers the whole underside of the glass pane and extends into the encapsulation.

Classifications:

International (IPC 8-9): B32B17/10 B32B7/12 B60J1/20
B62D25/06 (Advanced/Invention)

CPC: B32B17/10293 B32B17/10761 B32B17/1077 B32B2307/00
B32B2367/00 B32B2369/00 B62D25/06 B32B17/10752 B32B17/10779
B32B7/12 B32B17/10302 B32B2375/00 B32B2329/06 B32B17/10018
B32B2605/006 B60J1/2094



Family:

Publication number	Publication date	Application number	Application date
BR112017005024 A2	20180123	BR20171105024	20150911
EP2995451 A1	20160316	EP20140425114	20140915
MX2017003384 A1	20170621	MX20170003384	20150911
US2017259531 AA	20170914	US20150509753	20150911
WO16041628 A1	20160324	WO2015EP01830	20150911

Priority:

EP20140425114 20140915 WO2015EP01830 20150911

Probable Assignee: ISOCLIMA SPA

Assignee(s): (std): ISOCLIMA SPA

Assignee(s): ISOCLIMA S P A

Inventor(s): (std): DANIELE SANTI ; ROBERTO RAMPAZZO ; SANTI DANIELE ; RAMPAZZO ROBERTO

Agent(s): SEITZ RALF HANS FRANK; SEITZ RALF

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RA RO RS RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATED GLASS PANEL WITH THIN SHEET OF SHATTERPROOF GLASS

Abstract: A laminated glazing unit includes one to ten first glass sheets each of thickness included between 1.5 and 22 mm, if needs be adhesively bonded to one another by one or more first adhesive interlayers, and a second glass sheet forming one of the two faces of the laminated glazing unit, of thickness included between 0.5 and 1.5 mm, and adhesively bonded to the first glass sheet(s) by a second adhesive interlayer, the second glass sheet being made of aluminosilicate or soda-lime glass that is chemically toughened, having a surface stress comprised between 300 and 1000 and between 200 and 500 MPa, respectively, and a depth under compression between 20 and 100 micro m.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B7/04 B32B7/12 C03C27/12 (Advanced/Invention)

CPC: B32B17/10036 B32B2605/18 B32B17/10211 B32B17/10045 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B2605/10

Family:

Publication number	Publication date	Application number	Application date
BR112017011277 A2	20180403	BR20171111277	20151221
CN107107569 A	20170829	CN201580071639	20151221
CO20170006283 A2	20170911	CO20170006283	20170627
EP3240685 A1	20171108	EP20150830818	20151221
FR3031065 A1	20160701	FR20140063375	20141229
IN201717018236 A	20171117	IN201717018236	20170524
MX2017008573 A1	20171115	MX20170008573	20151221
US2017348945 AA	20171207	US20150539924	20151221
WO16108005 A1	20160707	WO2015FR53683	20151221

Priority:

FR20140063375 20141229 WO2015FR53683 20151221

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE

Inventor(s): (std): BENOIT LUBIN ; CHAUSSADE PIERRE ; DAUDIFFRET STEPHANE ; LUBIN BENOIT ; MICHAEL ROUBY ; MICHEL ROUBY ; PIERRE CHAUSSADE ; ROUBY MICHEL ; STEPHANE DAUDIFFRET

Agent(s): MARGARITA CASTELLANOS ABONDANO; SAINT GOBAIN RECHERCHE

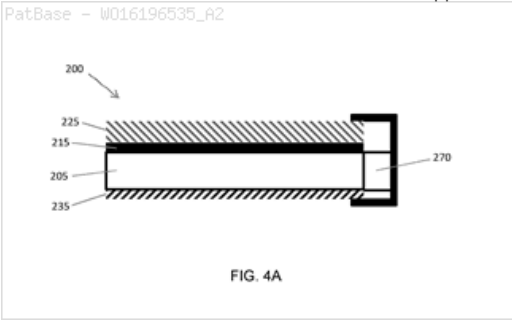
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATE STRUCTURES AND AUTOMOTIVE GLAZINGS COMPRISING LIGHT GUIDE PLATES

Abstract: Disclosed herein are laminate structures comprising a light guide plate including a first glass sheet, wherein the first glass sheet comprises from about 50 mole percent to about 90 mole percent SiO₂, from about 0 mole percent to about 15 mole percent Al₂O₃, and about 0 mole percent to about 19 mole percent R_xO, wherein x is 1 and R is chosen from Zn, Mg, Ca, Sr, or Ba, or wherein x is 2 and R is chosen from Li, Na, K, Rb, or Cs, and wherein the concentration of Fe is less than about 50 ppm

Classifications:

International (IPC 8-9): B32B17/10 B60J1/00 B60J3/00 C03C3/076 C03C3/078 C03C3/083 C03C3/085 C03C3/087 C03C3/093 C03C4/00 C03C4/08 G02B6/00 (Advanced/Invention)
CPC: C03C3/078 B32B17/10036 B32B17/10045 B32B17/10119 B32B17/10541 C03C3/083 C03C3/085 C03C3/087 C03C3/093 C03C4/0092 G02B6/00 B32B17/10091 B32B17/10137 B32B17/10486 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B60J1/001



Family:

Publication number	Publication date	Application number	Application date
■ CN107690388 A	20180213	CN201680032672	20160601
■ EP3303235 A2	20180411	EP20160735742	20160601
■ KR20180019127 A	20180223	KR20177037546	20160601
■ TW201704176 A	20170201	TW20160117161	20160601
■ WO16196535 A2	20161208	WO2016US35137	20160601
■ WO16196535 A3	20170112	WO2016US35137	20160601

Priority:

US20150169910P 20150602 WO2016US35137 20160601

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): GAHAGAN KEVIN THOMAS

Agent(s): SCHEUERMANN ERIK; HARDEE RYAN T

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GLASS LAMINATE WITH PANE HAVING GLASS-GLASS LAMINATE STRUCTURE

Abstract: A glass laminate includes a first pane having a glass-glass laminate structure, a second pane, and an interlayer disposed between the first pane and the second pane and including a polymeric material.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B37/08 B32B37/12
B32B7/02 C03B15/10 C03B17/06 C03C21/00
C03C27/12 (Advanced/Invention)

CPC: B32B17/10266 B32B17/10743 B32B2309/105 B32B37/08
B32B2605/006 B32B17/10137 B32B17/10036 B32B17/10091
B32B17/10247 B32B17/10761 B32B17/1077 B32B17/10788



Family:

Publication number	Publication date	Application number	Application date
■ CN107848267 A	20180327	CN201680044311	20160601
■ EP3302968 A1	20180411	EP20160729437	20160601
■ KR20180015713 A	20180213	KR20187000059	20160601
■ TW201704009 A	20170201	TW20160117238	20160601
■ US2018154615 AA	20180607	US20160578128	20160601
■ WO16196546 A1	20161208	WO2016US35151	20160601

Priority:

US20150169834P 20150602 US20150256842P 20151118 WO2016US35151 20160601
US20160578128 20160601

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): DOHN PAUL BENNETT ; GOLYATIN VLADISLAV YURIEVICH ; VADDI BUTCHI REDDY ; VENKATARAMAN NATESAN ; GOLYATIN VIADISLAV YURIEVICH

Agent(s): SCHEUERMANN ERIK; HOOD MICHAEL A

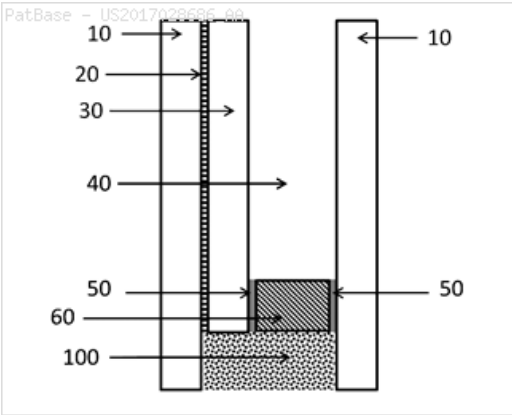
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: DURABLE AND LIGHTWEIGHT GLAZING UNITS

Abstract: An environmentally durable window glass unit is provided with improved edge sealing to protect the interlayer of one or more laminates that make up the unit. The insulated glass unit includes a first pane comprising an outboard glass sheet, an inboard sheet and an interlayer therebetween. The inboard sheet is smaller in length and/or width than the outboard sheet. The glass unit also includes a second pane spaced away from and sealed to the first pane. A gas space is located between the inboard sheet of the first pane and the second pane. A spacer is positioned between the first pane and the second pane. The spacer is adhered to the inboard sheet of the first pane and to the second pane with a primary seal. A second seal adheres the outboard sheet of the first pane to the second pane.

Classifications:

International (IPC 8-9): B32B17/06 B32B17/10 B32B27/08 B32B27/36 B32B27/40 B32B7/14 E06B3/66 E06B3/663 G02F1/1334 G02F1/1339 G02F1/1343 (Advanced/Invention)
CPC: B32B17/1055 E06B3/66309 B32B17/06 B32B7/14 B32B17/10733 B32B17/1077 B32B27/08 B32B27/36 B32B27/40 G02F1/1334 G02F1/13439 G02F1/1339 E06B2009/2417 B32B2255/10 B32B2255/205 B32B2255/24 B32B2255/26 B32B2274/00 B32B2307/202 B32B2307/412 B32B2307/416 B32B2419/00 E06B9/24 E06B3/6617 B32B7/045 B32B7/12 B32B9/045 B32B27/06 B32B27/308 B32B27/325 B32B2250/44 B32B2255/20 B32B2307/304 B32B2307/71 B32B2581/00 B32B17/10229 B32B17/10477 B32B17/10495 B32B17/10743 B32B17/10761 B32B17/10788 B32B17/10798
US: 428/34



Family:

Publication number	Publication date	Application number	Application date
US2017028686 AA	20170202	US20160223628	20160729

Priority:

US20150198380P 20150729 US20160223628 20160729

Probable Assignee: PLEOTINT LLC

Assignee(s): (std): BROEKHUIS MICHAEL D ; BYKER HARLAN J ; PLEOTINT LLC ; WILSON EDWARD L

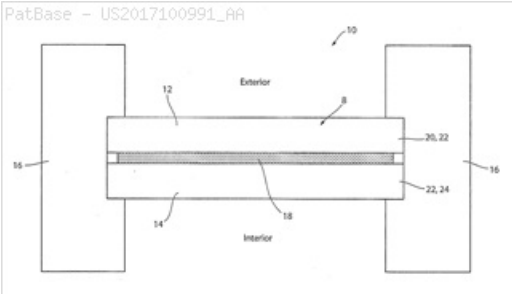
Inventor(s): (std): BROEKHUIS MICHAEL D ; BYKER HARLAN J ; WILSON EDWARD L

Title: SUNROOF INCORPORATING ELECTRO-OPTIC ELEMENT

Abstract: A vehicle sunroof comprising an electro-optic device is disclosed. The electro-optic device forms a variable transmission window comprising a first layer, a second layer, and an electro-optic medium disposed between the first layer and the second layer. At least one of the first layer and the second layer correspond to a polymeric film. The sunroof further comprises a frame configured to connect the electro-optic device to the vehicle.

Classifications:

International (IPC 8-9): B32B17/10 B60J1/20 B60J3/04 B60J7/043 B62D25/24 G02F1/15 G02F1/153 (Advanced/Invention)
CPC: B60J1/2094 G02F1/1533 B60J7/043 G02F2001/1515 G02F2001/1536 B60J3/04 G02F1/15 B32B17/10036 B32B17/10513 B32B17/10761 B32B17/1077 B32B17/10788 B32B2369/00
US: 359/275



Family:

Publication number	Publication date	Application number	Application date
■ CN108136881 A	20180608	CN201680058770	20161007
■ EP3359404 A1	20180815	EP20160854423	20161007
■ KR20180064488 A	20180614	KR20187012770	20161007
■ US2017100991 AA	20170413	US20160288020	20161007
■ WO17062766 A1	20170413	WO2016US55989	20161007

Priority:

US20150238414P 20151007 US20160288020 20161007 WO2016US55989 20161007

Probable Assignee: GENTEX CORP

Assignee(s): (std): GENTEX CORP

Inventor(s): (std): CAMMENG DAVID J ; POLL DAVID L ; TONAR WILLIAM L

Agent(s): MUELLER BORE AND PARTNER PATENTANWALTE PARTG MBB; CALLAGHAN TERRY S

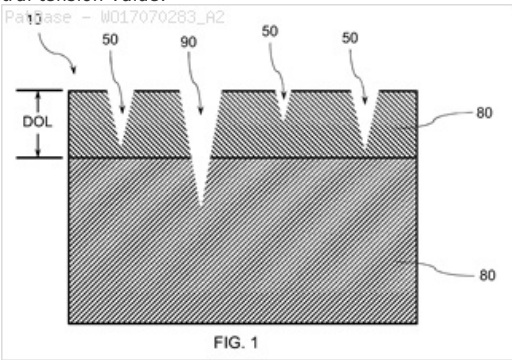
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ASYMMETRIC GLASS LAMINATES EXHIBITING IMPROVED DAMAGE TOLERANCE

Abstract: Principles and embodiments of the present disclosure relate to unique asymmetric laminates and methods that produce the laminates that have improved damage tolerance, where the laminate includes a first strengthened glass substrate having a first central tension value bonded to a second strengthened glass substrate having a second central tension value by an interlayer, where the first central tension value is less than the second central tension value.

Classifications:

International (IPC 8-9): B32B17/10 C03C21/00 (Advanced/Invention)
CPC: C03C21/002 B32B17/10036 B32B17/10137 B32B17/10743
B32B17/10761 B32B17/1077 B32B17/10788 B32B17/06 B32B17/10119
B32B2307/552 B32B2309/105 B32B2315/08



Family:

Publication number	Publication date	Application number	Application date
■ CN108349794 A	20180731	CN201680061999	20161020
■ EP3365297 A2	20180829	EP20160794104	20161020
■ KR20180071340 A	20180627	KR20187014277	20161020
■ WO17070283 A2	20170427	WO2016US57809	20161020
■ WO17070283 A3	20170629	WO2016US57809	20161020

Priority:

US20150244383P 20151021 US20150256777P 20151118 WO2016US57809 20161020

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING CO LTD ; CORNING INC

Inventor(s): (std): CLEARY THOMAS MICHAEL ; COUILLARD JAMES GREGORY ; DENSON WILLIAM KENNETH

Agent(s): EPPING HERMANN FISCHER; PATEL PAYAL A

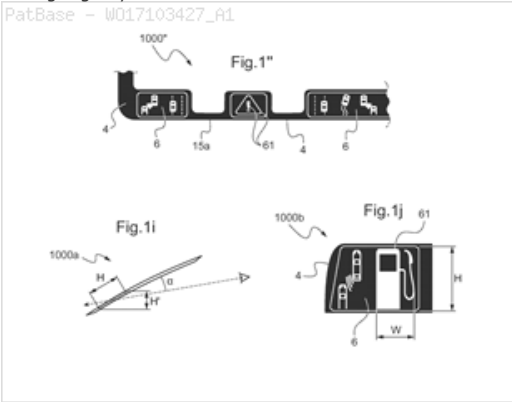
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATED WINDSHIELD FOR A VEHICLE, COMPRISING AN INTERNAL LUMINOUS SIGNAGE SYSTEM

Abstract: The invention relates to a laminated windshield for a vehicle, provided with internal luminous information (1000) and comprising a first glazing (1), an intermediate lamination sheet, and a second glazing (1') having a surface F4 that supports a first curved organic light emitting diode (OLED) device (2) for illuminating the first signage system.

Classifications:

International (IPC 8-9): B32B17/10 B60J1/02 B60Q11/00 C03C27/12 F21V33/00 G02B27/02 (Advanced/Invention)
CPC: B32B17/10541 B32B17/10018 B32B17/10036 B32B17/10174 B32B17/10348 B32B17/10761 B32B17/1077 B32B17/10788 B60K35/00 B32B2605/006



Family:

Publication number	Publication date	Application number	Application date
CN107107572 A	20170829	CN201680003431	20161213
FR3045505 A1	20170623	FR20150062515	20151216
FR3045505 B1	20171222	FR20150062515	20151216
KR20180095578 A	20180827	KR20187019820	20161213
WO17103427 A1	20170622	WO2016FR53367	20161213

Priority:

FR20150062515 20151216 WO2016FR53367 20161213

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN GLASS FRANCE S A ; SAINT GOBAIN SA

Assignee(s): SAINT GOBAIN GLASS FRANCE SA

Inventor(s): (std): LALUET JEAN YVES

Inventor(s): JEAN YVES LALUET

Agent(s): SAINT GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ASYMMETRIC LAMINATED GLASS

Abstract: The present invention relates to a laminated glazing comprising at least a first glass sheet of soda-lime-silica type, a second glass sheet which is thinner than the first glass sheet and a polymeric interlayer located between the two glass sheets, in which the second glass sheet is a glass of aluminosilicate type comprising the following oxides within the ranges of contents by weight defined below: SiO₂ between 60.00 and 68.00 percent Al₂O₃ between 2.80 and 7.80 percent Na₂O between 10.00 and 15.80 percent MgO between 4.90 and 10.10 percent K₂O between 4.80 and 9.70 percent B₂O₃ between 0 and 3.20 percent CaO between 0 and 1.00 percent. The process for the manufacture of such a glazing and its use as motor vehicle glazing are also described.

Classifications:

International (IPC 8-9): B32B17/10 C03B23/023 C03C21/00 C03C3/085 C03C3/087 C03C3/091 (Advanced/Invention)

CPC: C03C3/091 B32B17/10036 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 C03C3/085 C03C3/087 C03C21/002 B32B17/10119 B32B2605/006

Family:

Publication number	Publication date	Application number	Application date
AR107082 AA	20180321	AR2016P103891	20161216
CA3008317 AA	20180612	CA20163008317	20161214
CN107108335 A	20170829	CN201680003841	20161214
FR3045595 A1	20170623	FR20150062665	20151217
FR3045595 B1	20171222	FR20150062665	20151217
KR20180094979 A	20180824	KR20187019947	20161214
WO17103471 A1	20170622	WO2016FR53420	20161214

Priority:

FR20150062665 20151217 WO2016FR53420 20161214

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN RECH ; SAINT GOBAIN SA

Assignee(s): CLAIREAUX CORINNE ; FREDY CAROLE ; SAINT GOBAIN RECHERCHE

Inventor(s): (std): CLAIREAUX CORINNE ; FREDY CAROLE ; CORINNE CLAIREAUX ; CAROLE FREDY

Agent(s): GOUDREAU GAGE DUBUC ; SAINT GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HEAT REFLECTIVE SOLAR MODULE

Abstract: The present invention relates to a solar module in the form of a laminate which exhibits a solar cell system having an encapsulation layer on a back side and a front side, a barrier layer arranged on the back side encapsulation layer and arranged on the front side encapsulation layer, a first SiOx layer, a base web layer, a second SiOx layer, an optional lacquer layer, an adhesive layer and a glass layer whereby a silver containing low-E coating is arranged within one or between two front side layers thereby protecting the corrosion sensitive silver containing low-E coating from exposure to moisture.

Classifications:

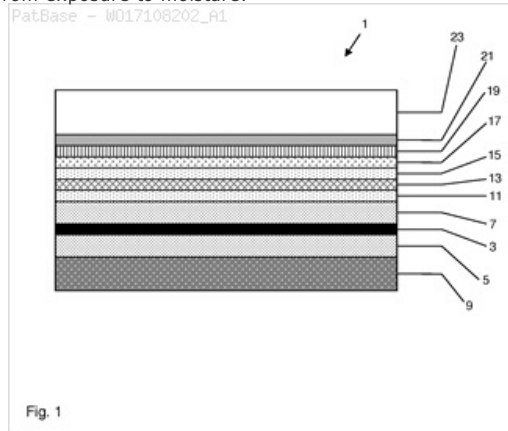
International (IPC 8-9): B32B17/10 B32B7/12 C03C17/36

H01L31/048 (Advanced/Invention)

CPC: H01L31/048 B32B17/10788 B32B2307/306 H01L31/0481

C03C17/366 C03C17/3678 B32B17/10018 B32B17/10733 B32B17/10743

B32B17/10761 Y02E10/50



Family:

Publication number	Publication date	Application number	Application date
CA3009248 AA	20180620	CA20163009248	20161221
EP3185309 A1	20170628	EP20150003665	20151223
SG11201804956X A1	20180730	SG20181104956	20161221
WO17108202 A1	20170629	WO2016EP25184	20161221

Priority:

EP20150003665 20151223 WO2016EP25184 20161221

Probable Assignee: AMCOR FLEXIBLES TRANSPAC

Assignee(s): (std): AMCOR FLEXIBLES TRANSPAC

Assignee(s): BOGELS ERIK ; CHRISTOPHERSON ROY ; ETTRIDGE PETER ; LOHWASSER WOLFGANG

Inventor(s): (std): BOEGELS ERIK ; BOGELS ERIK ; CHRISTOPHERSON ROY ; ETTRIDGE PETER ; LOHWASSER WOLFGANG

Agent(s): BENOIT AND COTE INC; ALTHAUS ROLAND

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR MANUFACTURING AN AUTOMOTIVE GLAZING PANEL INTO WHICH AN OLED SCREEN IS INCORPORATED

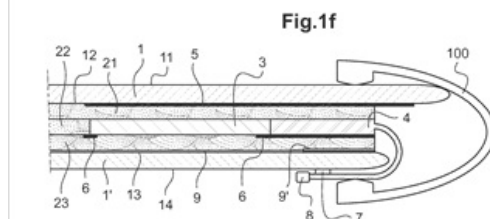
Abstract: The invention relates to: A process for manufacturing a glazing panel for a transport vehicle, said process comprising steps consisting in: - depositing in succession in the form of a stack: a first glazing (1), a first lamination interlayer made of polymeric material (21), - a second lamination interlayer made of polymeric material (22) and, in a reserve in the latter (22), a flexible OLED element or screen (3) that is directly extended toward one edge of the glazing by a connecting element (4) that is connected thereto and that extends out of the stack, - a third lamination interlayer made of polymeric material (23), and - a second glazing (1'), then in - subjecting the assembly to a vacuum at room temperature so as to remove air from within the stack, - heating the assembly to a temperature at most equal to 85 degrees centigrade, while continuing to subject it to a vacuum.

Classifications:

International (IPC 8-9): B32B17/10 B32B37/00 B32B37/10 B32B37/14 B60J1/00 C03C27/12 (Advanced/Invention)

CPC: B32B17/10036 B32B17/10174 B32B17/10541 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10844 B32B17/10871 B32B17/1099

PatBase - WO17115036_A1



Family:

Publication number	Publication date	Application number	Application date
CA3007402 AA	20180604	CA20163007402	20161222
CN107148344 A	20170908	CN201680004745	20161222
FR3046382 A1	20170707	FR20150063453	20151230
IN201817020994 A	20180907	IN201817020994	20180605
KR20180100048 A	20180906	KR20187018236	20161222
WO17115036 A1	20170706	WO2016FR53631	20161222

Priority:

FR20150063453 20151230 WO2016FR53631 20161222

Probable Assignee: SAINT GOBAIN GLASS FRANCE

Assignee(s): (std): SAINT GOBAIN ; SAINT GOBAIN GLASS FRANCE ; SAINT GOBAIN SA

Assignee(s): LABROT MICHAEL

Inventor(s): (std): LABROT MICHAEL

Inventor(s): MICHAEL LABROT

Agent(s): GOUDREAU GAGE DUBUC; SAINT GOBAIN RECHERCHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

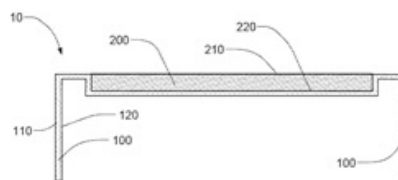
Title: THERMOFORMED POLYCARBONATE/GLASS LAMINATES AND APPLICATIONS THEREOF

Abstract: A laminate and an article of manufacture include a first layer including a polymeric material and a second layer including a glass sheet thermoformed to the first layer. The laminate may include at least one third layer including a polymeric material, the at least one third layer thermoformed to the second layer. The polymeric material in the first layer or the at least one third layer may include a polycarbonate. The laminate and/or article of manufacture may further include at least one functional layer. The at least one functional layer may include an image forming layer, a conductive layer or a touch sensing layer. An electronic device, a sound or moisture barrier, or a medical tray may incorporate the laminate/article of manufacture. Methods for forming the laminate and article of manufacture are also described.

Classifications:

International (IPC 8-9): B32B17/10 B32B27/20 B32B27/28 B32B27/30 B32B27/32 B32B27/34 B32B27/36 B32B7/12 (Advanced/Invention)
CPC: B32B7/12 B32B27/20 B32B27/281 B32B27/285 B32B27/302 B32B27/308 B32B27/32 B32B27/34 B32B27/36 B32B27/365 B32B2255/10 B32B2255/26 B32B2262/0269 B32B2262/0276 B32B2262/06 B32B2262/062 B32B2262/08 B32B2262/101 B32B2262/103 B32B2262/106 B32B2262/108 B32B2270/00 B32B2307/102 B32B2307/202 B32B2307/212 B32B2307/40 B32B2307/41 B32B2307/554 B32B2307/71 B32B2307/7246 B32B2307/7265 B32B2307/728 B32B2307/73 B32B2457/20 B32B2535/00 B32B17/064 B32B17/10018 B32B17/1077 B32B17/10788 B32B2369/00 B32B2457/202

PatBase - WO17116714_A1



Family:

Publication number	Publication date	Application number	Application date
■ CN108463344 A	20180828	CN201680078845	20161214
■ WO17116714 A1	20170706	WO2016US66654	20161214

Priority:

US20150272765P 20151230 WO2016US66654 20161214

Probable Assignee: SABIC GLOBAL TECHNOLOGIES BV

Assignee(s): (std): AMBA RAKSHIT ; SABIC GLOBAL TECHNOLOGIES BV

Inventor(s): (std): AMBA RAKSHIT

Agent(s): QUICKER KATRINA M ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CELLULOSE ESTER MULTILAYER INTERLAYERS

Abstract: An interlayer structure having a cellulose ester layer for use in structural laminates is described herein. The cellulose ester layer provides rigidity and support to multilayer interlayers comprising an array of different layers. Due to the diverse properties of the cellulose ester layers, the present interlayers can be useful in producing structural laminates having high stiffness and which possess good optical clarity for a variety of applications, including outdoor structural applications.

Classifications:

International (IPC 8-9): B32B17/08 B32B17/10 B32B23/08 B32B23/14 B32B23/16 B32B23/18 B32B23/20 B32B27/08 B32B27/22 B32B27/30 B32B27/36 B32B27/40 B32B27/42 B32B37/10 B32B37/15 B32B7/02 B32B7/12 (Advanced/Invention)

CPC: B32B17/08 B32B17/10036 B32B17/10761 B32B23/20 B32B17/1077 B32B23/14 B32B17/10743 B32B17/10788 B32B37/1018 B32B23/08 B32B27/306 B32B27/22 B32B2307/102 B32B3/02 B32B7/02 B32B7/12 B32B17/00 B32B23/16 B32B27/08 B32B27/308 B32B27/40 B32B27/42 B32B2250/03 B32B2250/05 B32B2250/40 B32B2255/10 B32B2255/26 B32B2270/00 B32B2307/30 B32B2307/412 B32B2307/542 B32B2307/558 B32B2419/00 B32B2571/00 B32B2317/18 B32B2331/04 B32B2329/06 B32B2375/00 B32B2605/08 B32B2605/18 B32B27/30 B32B2605/006 B32B2457/12 B32B2307/54 B32B27/36 B32B17/10779 B32B17/10605 B32B37/153 B32B23/06 B32B2250/04 B32B2307/418

PatBase - US2017259530_AA

**Family:**

Publication number	Publication date	Application number	Application date
US2017259530 AA	20170914	US20170453758	20170308
US2017259534 AA	20170914	US20170453466	20170308
US2017259535 AA	20170914	US20170453522	20170308
US2017259536 AA	20170914	US20170453613	20170308
US2017259538 AA	20170914	US20170453506	20170308
US2017259539 AA	20170914	US20170453636	20170308
US2017259540 AA	20170914	US20170453748	20170308
WO17156361 A2	20170914	WO2017US21726	20170310
WO17156361 A3	20180726	WO2017US21726	20170310
WO17156361 A8	20171026	WO2017US21726	20170310
WO17156364 A2	20170914	WO2017US21729	20170310
WO17156364 A3	20180726	WO2017US21729	20170310

Priority:

US20160306748P	20160311	US20160306752P	20160311	US20160306765P	20160311
US20160306762P	20160311	US20160306757P	20160311	US20160306756P	20160311
US20160306770P	20160311	US20160306774P	20160311	US20170453466	20170308
US20170453522	20170308	US20170453636	20170308	US20170453613	20170308
US20170453486	20170308	US20170453506	20170308	US20170453758	20170308
US20170453748	20170308				

Probable Assignee: SOLUTIA INC**Assignee(s):** (std): SOLUTIA INC

Inventor(s): (std): CUI WEIHONG ; DONELSON MICHAEL ; DONELSON MICHAEL EUGENE ; KARAGIANNIS ARISTOTELIS ; KARAGIANNIS ARISTOTELLIS ; TRAN KHANH ; TRAN KHANH DUC ; WADE BRUCE ; WADE BRUCE EDWARD

Agent(s): BUGBEE MICHELLE; OWEN STEVEN A

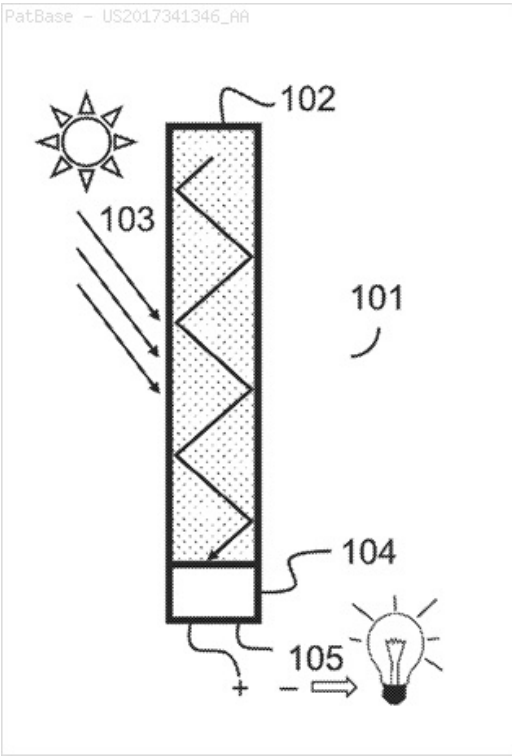
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Title: LAMINATED GLASS LUMINESCENT CONCENTRATOR

Abstract: A laminated glass luminescent concentrator is provided which includes a solid medium having a plurality of fluorophores disposed therein. In some embodiments, the fluorophore is a low-toxicity quantum dot. In some embodiments, the fluorophore has significantly reduced self-absorption, which allows for unperturbed waveguiding of the photoluminescence over a long distance. Also disclosed are apparatuses for generating electricity from the laminated glass luminescent concentrator, and its combination with buildings and vehicles.

Classifications:

International (IPC 8-9): B32B17/08 B32B17/10 E06B3/66 E06B3/663 E06B3/673 H01L31/055 (Advanced/Invention)
CPC: B32B17/10449 B32B17/10036 B32B17/10614 B32B17/10743 B32B17/10761 H01L31/055 B32B17/10871 B32B17/10908 B32B17/10935 B32B17/08 B32B17/10788 B32B2305/72 B32B2305/30 B32B2264/12 B32B2255/26 B32B2307/422 B32B2311/12 B32B2311/20 B32B2315/08 B32B2317/18 B32B2329/06 B32B2331/04 B32B2333/12 B32B2419/00 B32B2457/12 B32B2605/08



Family:

Publication number	Publication date	Application number	Application date
US2017341346 AA	20171130	US20170604656	20170525
WO17205641 A1	20171130	WO2017US34507	20170525

Priority:

US20160341238P 20160525 US20170604656 20170525

Probable Assignee: UBIQD LLC

Assignee(s): (std): UBIQD LLC

Inventor(s): (std): BERGREN MATTHEW ; BERGREN MATTHEW R ; JACKSON AARON ; MCDANIEL HUNTER

Agent(s): FORTKORT JOHN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: LAMINATING THIN STRENGTHENED GLASS TO CURVED MOLDED PLASTIC SURFACE FOR DECORATIVE AND DISPLAY COVER APPLICATION

Abstract: A process comprises cold-forming a flat glass substrate into a non-planar shape using a die. The cold-formed glass substrate is bonded to a non-planar rigid support structure at a plurality of non-planar points using the die. Bonding methods include injection molding the non-planar rigid support structure, and direct bonding. An article is also provided, comprising a cold-formed glass substrate having opposing major surfaces and a curved shape, the opposing major surfaces comprising a surface stress that differ from one another. The cold-formed glass substrate is attached to a rigid support structure having the curved shape. The cold-formed glass substrate includes an open region not in direct contact with the non-planar rigid support structure, and the open region has a curved shape maintained by the non-planar rigid support structure.

Classifications:

International (IPC 8-9): B29C45/14 B32B17/06 B32B17/10 B60R13/02 C03B23/023 C03B23/03 C03C17/00 C03C25/10 E06B3/66 (Advanced/Invention)

CPC: C03C17/002 B32B17/10889 C03B23/023 C03C2217/73 B29C45/1418 B29C45/14778 B60R13/02 B32B17/10036 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788

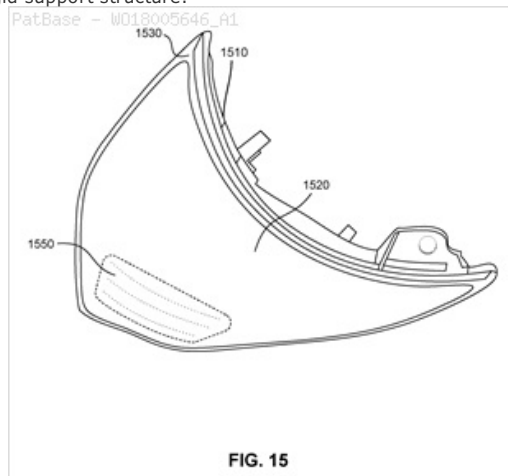


FIG. 15

Family:

Publication number	Publication date	Application number	Application date
TW201808836 A	20180316	TW20170121551	20170628
WO18005646 A1	20180104	WO2017US39752	20170628

Priority:

US20160355542P 20160628 US20170444470P 20170110

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING INC

Inventor(s): (std): BRENNAN MICHAEL TIMOTHY ; SUN YAWEI

Agent(s): PATEL PAYAL A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

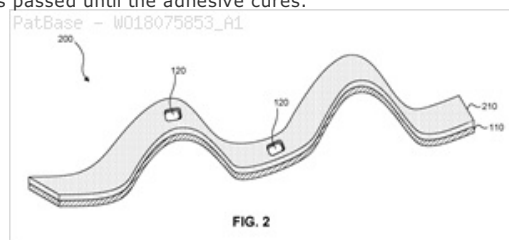
Title: COLD FORMED 3D COVER GLASS ARTICLES AND FORMING PROCESS TO MAKE THE SAME

Abstract: In some embodiments, a process comprises applying an adhesive layer to a substrate having a developable shape. The process further comprises initially applying a force to press a thin glass layer against the adhesive layer along a generation line. The generation line moves across the substrate to cold-form the thin glass layer into the shape of the substrate, while maintaining the application of force on areas of the substrate over which the generation line has passed. The application of force is maintained on areas of the substrate over which the generation line has passed until the adhesive cures.

Classifications:

International (IPC 8-9): B30B3/02 B32B17/06 B32B17/10 B32B7/12 (Advanced/Invention)

CPC: B32B17/10036 B30B3/02 B32B7/12 B32B17/06 B32B17/10119 B32B17/10137 B32B17/10743 B32B17/10761 B32B17/1077 B32B17/10788 B32B17/10862



Family:

Publication number	Publication date	Application number	Application date
TW201829162 A	20180816	TW20170136097	20171020
WO18075853 A1	20180426	WO2017US57529	20171020

Priority:

US20160410482P 20161020

Probable Assignee: CORNING INC

Assignee(s): (std): CORNING INC

Inventor(s): (std): CLEARY THOMAS MICHAEL ; SUN YAWEI ; ZHANG CHUNHE

Agent(s): PATEL PAYAL A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW