

1) Family number: 48239047 (US2012136098A) © PatBase

Title: NEW TRIAZINE DERIVATIVE, ULTRAVIOLET ABSORBER, AND RESIN COMPOSITION

Priority: JP20090176897 20090729 JP20090206478 20090907 JP20090221661 20090925
JP20100009536 20100119 JP20100152490 20100702 JP20100152491 20100702
EP20100804469 20100728 WO2010JP62734 20100728

Family:

Publication number	Publication date	Application number	Application date
CN102510861 A	20120620	CN201080042098	20100728
DE602010050410 D1	20180530	DE201060050410T	20100728
EP2460799 A1	20120606	EP20100804469	20100728
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US8957140 BB	20150217	US20100387505	20100728
WO11013723 A1	20110203	WO2010JP62734	20100728

Probable Assignee: FUJIFILM HOLDINGS CORP

Assignee(s):(std): AMASAKI ICHIRO ; FUJI PHOTO FILM CO LTD ; FUJIFILM CORP ; FUJIFILM HOLDINGS CORP ; KIMURA KEIZO ; NAKAMURA TAKUMI ; YOKOYAMA HIROSHI ; TSUMURA KYOSUKE ; WATANABE YUKIE

Inventor(s):(std): ICHIRO AMASAKI ; HIROSHI YOKOYAMA ; KEIZO KIMURA ; KYOSUKE TSUMURA ; TAKUMI NAKAMURA ; YUKIE WATANABE ; YOKOYAMA YUTAKA ; AMAGASAKI KAZUMICHI ; WATANABE YUKIE ; TSUMURA KYOSUKE ; AMASAKI ICHIRO ; KIMURA KEIZO ; YOKOYAMA HIROSHI ; NAKAMURA TAKUMI

Inventor(s): AMASAKI ICHIRO ODAWARA SHI KANAGAWA ; KIMURA KEIZO ODAWARA SHI KANAGAWA ; WATANABE YUKIE ODAWARA SHI KANAGAWA ; TSUMURA KYOSUKE MINAMI ASHIGARA SHI KANAGAWA ; YOKOYAMA HIROSHI MINAMI ASHIGARA SHI KANAGAWA ; NAKAMURA TAKUMI MINAMI ASHIGARA SHI KANAGAWA

Agent(s): SIEGERT GEORG; HOFFMANN EITL; SUGHRUE MION PLLC; TAKAMATSU TAKESHI 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 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 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

International class (IPC 8-9): A61K8/49 A61Q17/04 C07D251/00 C07D251/24 C07D401/10 C08K5/3492 C08L101/00 C09K15/30 C09K3/00 (Advanced/Invention)

CPC: C07D251/24 C08K5/3492 C09K15/30

European class: C07D251/24 C08K5/3492 C09K15/30

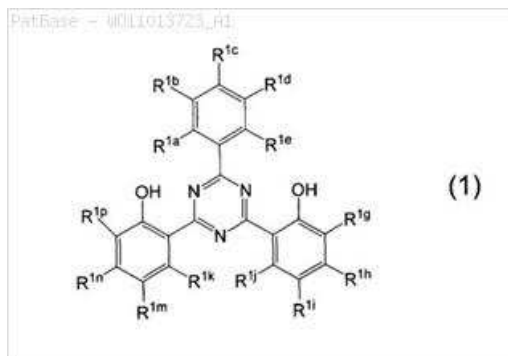
US class: 524/100 544/216 544/216S

[Classification Explorer](#)

Cited documents: WO9418278 A2, WO08110487 A1, WO08110487 A1, US6225468 BA, US6090370 A, US6090370, US5637706 A, US5556973 A, US5545836 A, US5543518 A, US4826978 A, US4826978 A, US3249608 A, US3113941 A, US3113941 A, US2011311786 AA, US2009021671 AA, US2006019206 AA, US2003113515 AA, US1065425 A, US06090370, US04826978, US03113941, JP853427 A2, JP8272058 A2, JP8072058 A2, JP8053427 A2, JP8053427 A2, JP7188190 A2, JP7188190 A2, JP656466 A2, JP63264748 A2, JP63264748 A2, JP6056466 A2, JP6056466 A2, JP58209735 A2, JP58209735 A2, JP55129136 A2, JP55129136 A2, JP5345639 A2, JP5345639 A2, JP5339033 A2, JP5339033 A2, JP4191851 A2, JP4191851 A2, JP3965631 B2, JP3965631 B2, JP2010152491 A2, JP2010152490 A2, JP2010009536 A2, JP2009221661 A2, JP2009209343 A2, JP2009206478 A2, JP2009176897 A2, JP2008273950 A2, JP2008273950 A2, JP2007298648 A2, JP2007298648 A2, JP2006310461 A2, JP2006310461 A2, JP200588284 A2, JP2005088284 A2, JP2005055615 A2, JP2005055615 A2, JP2004352728 A2, JP2004352728 A2, JP2003211538 A2, JP2003211538 A2, JP2002524452 T2, JP2002113937 A2, JP2002113937 A2, JP2002088284 A2, JP2002088284 A2, JP2002053824 A2, JP2002053824 A2, JP2001220385 A2, JP2001220385 A2, JP11315072 A2, JP11315072, JP10044352 A2, JP10044352, GB2293823 A1, GB2293823 A1, GB2016017 A1, GB2016017 A1, GB1065425 A, GB1065425, GB01065425, EP0425429 A2, EP0425429 A2, CH484695 A3, CH484695 A, CH484695 A, CH480090 A3, CH480090 A, CH480090 A, BE650932 A, BE650932 A,

Forward Citations: WO12077470, WO12077469, WO11089970, WO11089968, US9897844, US2014204320, JP5767801, JP2012072125, JP2011225811, JP2011148865, EP3178898, CN103086989, CN103086989,

Abstract:
To provide a novel triazine-based compound exhibiting an ultraviolet blocking effect even in the long-wavelength region and being useful as an ultraviolet absorber with excellent light resistance, and to provide an ultraviolet absorber and a resin composition, which can maintain a long-wavelength ultraviolet-blocking effect for a long period of time. A compound represented by the following formula (1): wherein each of R1a, R1b, R1c, R1d and R1e independently represents a hydrogen atom or a monovalent substituent excluding OH, provided that at least one substituent represents a substituent having a Hammett's sp value of 0.3 or more and substituents may combine with each other to form a ring, and each of R1g, R1h, R1i, R1j, R1k, R1m, R1n and R1p independently represents a hydrogen atom or a monovalent substituent, provided that substituents may combine with each other to form a ring.



2) Family number: 30716066 (US2004132368A)

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Title:	ENCHANCED ENERGY ABSORBING MATERIALS																																																																																
Priority:	US20020409225P 20020910 US20030658550 20030910		US20020922502 20020910 WO2003US28197 20030910		EP20030816943 20030910 US20060451438 20060613																																																																												
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Probable Assignee:	TEX TECH IND INC																																																																																
Assignee(s):(std):	TEX TECH IND INC																																																																																
Assignee(s):	SOVEREIGN BANK ; TEX TECH IND ; TEX TECH INDUSTRIES INC ; PENINSULA FUND IV LTD ; PENINSULA FUND IV PARTNERSHIP LTD ; TEX TECH INDUSTRIES ; NEWSTAR FINANCIAL INC AGENT AS ; PRICE ALLEN L ; RITTER ERIC D ; TEX TECH IND INC NORTH MONMOUTH ; TTI THAILAND HOLDINGS II LLC ; TTI THAILAND HOLDINGS INC ; CHAPMAN THERMAL PRODUCTS INC ; ERB DAVID F JR ; FIFTH THIRD BANK ; FIFTH THIRD BANK AGENT AS ; GOVERNOR AND CO OF BANK OF IRELAND AS COLLATERAL AGENT ; KCAP MANAGEMENT LLC COLLATERAL AGENT AS ; NEWSTAR FINANCIAL INC																																																																																
Inventor(s):(std):	ALLEN L PRICE ; BARTER ERIC ; BARTER ERIC A ; DAVID F ; ELIZA L MONTGOMERY ; ERB DAVID ; ERB DAVID F ; ERB DAVID F JR ; ERB JR DAVID F ; ERIC A BARTER ; ERIC D RITTER ; MONTGOMERY ELIZA ; MONTGOMERY ELIZA L ; PRICE ALLEN ; PRICE ALLEN L ; RITTER ERIC ; RITTER ERIC D																																																																																
Inventor(s):	RITTER ERIC D MONMOUTH ; PRICE ALLEN L RISING SUN ; MONTGOMERY ELIZA L NORTH MONMOUTH ; JR DAVID F ; ERB DAVID F JR READFIELD ; ERB DAVID FJR ; ERB ; DAVID F JR ERB ; BARTER ERIC A WINTROP																																																																																
Agent(s):	BERESKIN AND PARR LLP SENCRL SRL; MITSCHERLICH PATENT U RECHTSANWAELTE PARTMBB; RUPP CHRISTIAN; FITZPATRICK CELLA HARPER AND SCINTO																																																																																
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 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 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 UZ VC VN YU ZA ZM ZW																																																																																
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[Classification Explorer](#)

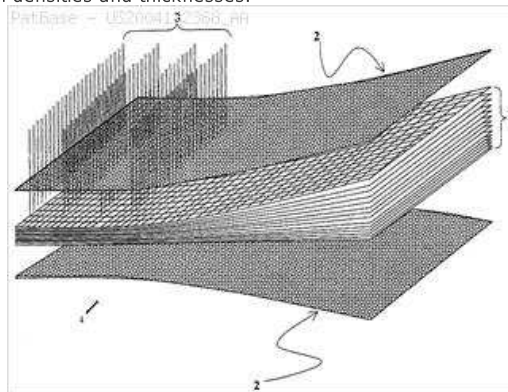
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Forward Citations: WO17116649, WO16116774, WO14084950, WO14084950, WO11082201, WO10019297, WO10019297, WO08148550, WO07067949, WO07067949, WO07044041, WO05089402, WO05089402, WO04088023,

WO04088023, USD528784, USD516777, US9494387, US9457206, US9387644, US9012339, US8796163, US8519846, US8171569, US8166569, US8015617, US7987762, US7900267, US7700503, US7700190, US7665149, US7638446, US7490358, US7326664, US7266850, US7259675, US2018001594, US2017101729, US2016202024, US2016114558, US2014206248, US2012174876, US2011312238, US2011203450, US2011155171, US2010294123, US2010098919, US2009291605, US2009282596, US2009271903, US2009247031, US2009136706, US2009053951, US2008148929, US2008078657, US2008024310, US2007207689, US2007200703, US2005215158, US2005205658, US2005197028, US2004248494, US10060181, US10035333, KR101313477, JP6289671, JP2017527702, EP3227103, EP3115492, EP3115492, EP2288496, CN103750597, CN103750597, CN103522667, CN102686788, CN102216069,

Abstract:

Dense, highly stable, high performance ballistic material comprises at least one woven layer of ballistic grade fiber (preferably a stack of such layers) and at least one nonwoven layer of fabric which is entangled with the woven or unidirectional layer by needle felting. The resulting core material does not require assembly of individual woven layers during subsequent manufacture of ballistic articles and exhibits excellent ballistic performance at low areal densities and thicknesses.



3) Family number: 49080100 (US2012238165A)

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Title: USE OF CORE-SHELL PARTICLES FOR ANTI-WICKING APPLICATION OF A YARN OR FABRIC
Priority: EP20090178500 20091209 EP20100787444 20101206 WO2010EP68928 20101206
Family:

Publication number	Publication date	Application number	Application date
CN102652195 A	20120829	CN201080055802	20101206
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KR101846813 B1	20180410	KR20127017651	20101206
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PT2510148 T	20131106	PT20100787444T	20101206
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US2012238165 AA	20120920	US20100514862	20101206
WO11069941 A1	20110616	WO2010EP68928	20101206

Probable Assignee: TEIJIN LTD
Assignee(s):(std): AKKER PETER GERARD ; KWINT HUIBERT CORNELIS ; TEIJIN ARAMID BV ; TEIJIN LTD ; TEJDZHN ARAMID BV
Assignee(s): TEIJIN ARAMID B V
Inventor(s):(std): KWINT HUIBERT CORNELIS ; AKKER PETER GERARD ; KVINT KHEJBERT KORNELIS ; GERARD AKKER PETER ; CORNELIS KWINT HUIBERT
Inventor(s): HUIBERT CORNELIS KWINT ; PETER GERARD AKKER
Agent(s): SCHROEDER OBERLEIN PATENTANWALTS UG HAFTUNGSBESCHRAENKT; HEIMANN ANETTE
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
International class (IPC 8-9): B05D5/00 B05D7/00 B32B5/24 C08F222/08 C09D139/00 C09D151/00 C09D7/12 D02G3/36 D03D1/00 D03D1/06 D06M13/02 D06M13/192 D06M13/224 D06M15/233 D06M15/285 D06M15/356 D06M23/08 D06M23/12 (Advanced/Invention)
CPC: D06M23/12 C09D151/00 D06M13/02 D06M13/192 D06M15/233 D06M15/285 D06M2200/12 Y10T428/2927 Y10T442/2197 D03D1/0052 D03D1/06 D10B2401/021 D10B2507/00
European class: C09D151/00 D06M13/02 D06M13/192 D06M15/233 D06M15/285 D06M23/12 N06M200/12
US class: 427/180 428/372 442/83

[Classification Explorer](#)

Cited documents: WO08014903 A1, WO08014903, WO07014635 A2, WO05093140, WO04031249 A1, US7132131 BB, US6830657 BA, US6407197 BA, US6051315 A, US5116682 A, US4868042 A, US3503880 A, US2009253828 AA, US2009253828, RU2174569, RU2139962, RU2056467, RU2005122442, JP6391235, JP63091235 A2, JP63091235, JP63012765 A2, JP63012765, JP4272275 A2, JP4272275, JP31008948 B1, JP31008948 B1, JP2009133043 A2, JP2009133043, JP2008509289 T2, JP2008509289, EP1405865 A1, EP0270231, EP0270213 A2, CN1867728 A, CN101675189 A, CN101511464 A,
Forward Citations: WO17072012, WO15067684, US2016281295, RU2668660, JP2016535176, JP2016044092, EP3066256, CN105705697, CN104878460, CN104562280, CN104562280, CN104480566,

Abstract:

The invention relates to the use of core-shell particles with a mean diameter of 10-300 nm and a standard deviation s at least 10 percent of the mean value, and wherein the shell of the core-shell particle comprises a copolymer of vinyl aromatic monomer and maleimide monomer with a glass transition temperature T_g of between 120 and 220 degrees centigrade for coating a yarn or fabric to inhibit or prevent wicking in said yarn or fabric. The invention further relates to an aramid fabric, such as boat sails, which yarns are provided with a finish comprising a diglycehdde or a triglyceride obtained from glycerol that is esterified with saturated or unsaturated fatty acids with 6-20 carbon atoms and are then provided with the core-shell particles.

4) Family number: 48433134 (US2012159698A)

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Title:	TEXTILE FABRIC MADE FROM ARAMID FIBERS AND THE USE THEREOF				
Priority:	EP20090169383 20090903 US20120394233 20120305		EP20100745650 20100827 US20170790553 20171023		WO2010EP62522 20100827
Family:	Publication number	Publication date	Application number	Application date	
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	US2018044848 AA	20180215	US20170790553	20171023	
	US9834883 BB	20171205	US20100394233	20100827	
	WO11026782 A1	20110310	WO2010EP62522	20100827	
Probable Assignee:	TEIJIN LTD				
Assignee(s):(std):	AKKER PETER GERARD ; HARTERT RUDIGER ; HARTERT RUEDIGER ; TEIJIN ARAMID GMBH ; TEIJIN LTD ; TEJDZHIN ARAMID GMBKH				
Inventor(s):(std):	HARTERT RUEDIGER ; AKKER PETER GERARD ; KHARTERT RJUDIGER ; GERARD AKKER PETER ; RUEDIGER HARTERT ; HARTERT RUDIGER				
Agent(s):	SCHROEDER OBERLEIN PATENTANWALTS UG HAFTUNGSBESCHRAENKT; HEIMANN ANETTE; OLIFF PLC				
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				
International class (IPC 8-9):	A41D13/00 A41D13/008 A41D13/015 A41D13/05 B32B27/02 B32B5/26 D01F11/08 D01F6/60 D03D15/00 D06M D06M15/507 D06M15/513 F41H1/02 (Advanced/Invention); D06M101/36 (Advanced/Non-invention); D06M (Subclass/Invention)				
CPC:	D01F6/605 D01F11/08 D10B2331/021 D10B2401/063 D10B2501/04 D10B2507/00 F41H1/02 D06M15/513 D06M2101/36 Y10T442/2861				
European class:	D06M15/513 N06M101/36				
US class:	2/463 2/463P 442/164 442/164S				
Classification Explorer					
Cited documents:	WO08148550 A1, WO02075238 A1, US6890871 BB, US5569408 A, US5569408, US5545481 A, US5545481, US4652488 A, US2008085411 AA, US2006105168 AA, US2004142617 AA, US2004142617, RU2295107, KR20030088452, JP9111661 A2, JP7138881 A2, JP6509593 T2, JP60088180 A2, JP3104929 A2, JP2005538334 T2, EP0511589 A1, CN1606498 A, CN1068812 A, CN101522969 A,				
Forward Citations:	US10121100, US10108897, CN105768260,				
Abstract:	A textile fabric made from aramid fibers finished with a finishing agent. The finishing agent includes a carbonic acid polyester. The textile fabric can be incorporated into a penetration-resistant article. The penetration-resistant article can be a fragment protection mat, a bullet-proof vest, a flak jacket, a stab-resistant vest, or a combination thereof.				

5) Family number: 60153155 (US2017176146A)

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Title:	PROTECTIVE CLOTHING UNIT HAVING PREFERABLY TEXTILE FRAGMENT PROTECTION EQUIPMENT					
Priority:	DE201410010246 20140711		DE201410010321 20140714		DE201420103530U 20140730	
	DE201410110791 20140730		WO2015EP58379 20150417		EP20150717164 20150417	
Family:						
	Publication number	Publication date	Application number	Application date		
	DE102014110791 A1	20160114	DE201410110791	20140730		
	DE202014103530 U1	20150827	DE201420103530U	20140730		
	DE502015005132 D1	20180816	DE201550005132T	20150417		
	DK3132227 T3	20181105	DK20150717164T	20150417		
	EP3132227 A1	20170222	EP20150717164	20150417		
	EP3132227 B1	20180718	EP20150717164	20150417		

ES2691221 T3	20181126	ES20150717164T	20150417
RS57879 B1	20181231	RS20180001231	20150417
TR201814125 T4	20181022	TR20180014125T	20150417
US2017176146 AA	20170622	US20150324333	20150417
WO16005066 A1	20160114	WO2015EP58379	20150417

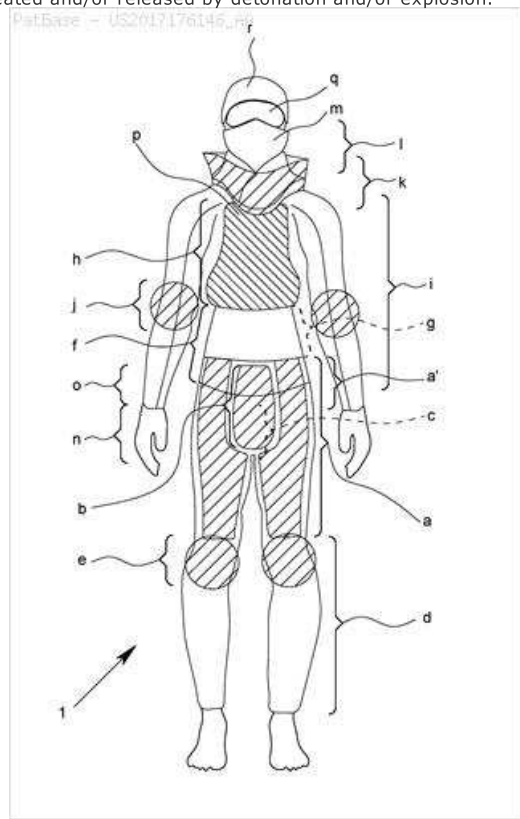
Probable Assignee: BLUECHER GMBH
Assignee(s):(std): BLUECHER GMBH ; FREIER KATRIN
Inventor(s):(std): BOEHRINGER BERTRAM ; FREIER KATRIN
Inventor(s): KATRIN FREIER ; BERTRAM BOEHRINGER
Agent(s): VON ROHR PATENTANWAELTE PARTNERSCHAFT MBB; FULYA SUEMERALP
Designated states: AE AG AL AM AO AT AU AZ BA BB 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
International class (IPC 8-9): A41B9/06 A41B9/12 A41D1/06 A41D13/00 A41D13/02 A41D13/11 A41D19/015 A41D3/00 A62B17/00 D04B1/14 F41H1/02 F41H5/04 (Advanced/Invention)
CPC: F41H5/0485 F41H5/0478 A41B9/12 A41B9/06 A62B17/006 A62B17/003 A41D13/11 A41D1/06 A41D13/02 A41D3/00 A41D19/01505 F41H1/02

[Classification Explorer](#)

Cited documents: WO9937969 A1, WO9937969 A1, WO14060094 A1, WO14060094 A1, WO10104943 A2, WO10104943 A2, WO05066401 A1, WO05066401 A1, US7737038 BB, US7737038 BB, US6656570 BA, US6656570 BA, US3221522 A, US3221522 A, US2014033388 AA, US2014033388 AA, US2012060681 AA, US2010275341 AA, US2009320172 AA, US2009320172 AA, GB2500117 A1, GB2500117 A1, GB2487966 A1, EP1918022 A1, EP1918022 A1, EP1058808 A1, EP1058808 A1, DE4328219 A1, DE4328219 A1, DE4304026 A1, DE4304026 A1, DE3419934 A1, DE3419934 A1, DE3034547 C2, DE3034547 C2, DE20314504 U1, DE202010000598 U1, DE202010000598 U1, DE19802242 A1, DE19802242 A1, DE19600237 A1, DE19600237 A1, DE112010005258 T5, DE102012110104 A1
Forward Citations: WO17129416, DE102016101215,

Abstract:

The invention relates to a protective clothing unit, in particular a protective clothing unit having fragment protection, preferably having a protective function against fragments created and/or released by detonation and/or explosion, comprising outerwear and/or underwear and possibly comprising separate head and/or face protection, neck protection, shoulder protection, arm protection, hand protection, trunk protection, torso protection, genital and/or anal protection, and/or leg protection, wherein the protective clothing unit has fragment protection elements, preferably textile fragment protection elements, which are specific and different from each other and which are associated with different body regions when worn and/or cover different body regions when worn, preferably having a protective function against fragments created and/or released by detonation and/or explosion.



Priority: DE201310015669 20130923 WO2014EP70088 20140922

Family:

Publication number	Publication date	Application number	Application date
DE102013015669 A1	20150326	DE201310015669	20130923
EP3049245 A1	20160803	EP20140786619	20140922
US2016229505 AA	20160811	US20140024224	20140922
WO15040205 A1	20150326	WO2014EP70088	20140922

Probable Assignee: DIMENSION POLYANT GMBH

Assignee(s):(std): DIMENSION POLYANT GMBH

Inventor(s):(std): LAURENZATTO LUC ; SCHILLINGS HEINER

Agent(s): SCHNEIDERS JOSEF; THIEL CHRISTIAN

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

International class (IPC 8-9): B32B5/02 B32B5/10 B32B5/12 B32B5/26 B63H9/06 D04H3/04 (Advanced/Invention)

CPC: B32B7/12 B32B2262/0223 B32B2262/0276 B32B5/10 B32B2262/0284 B32B2262/0269 B32B2307/516 B32B2307/518 B32B2605/12 B63H9/0657 B32B5/022 B32B5/12 B32B5/26 B32B2250/20 B32B2262/0253 B32B2262/106 B32B2307/718 B32B2307/734 B63H2009/0678 D06M17/04 D06M17/10

US class: 114/102.31

[Classification Explorer](#)

Cited documents: WO0121383 A1, EP2578734 A1, DE3928312 A1,

Forward Citations: WO18234725, GB2560179,

Abstract:
A sailcloth including at least one textile layer, wherein at least one textile layer consists of a nonwoven fabric material with unidirectionally or bidirectionally aligned filaments.

7) Family number: 43836165 (US2009255038A)

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Title: PROTECTIVE GARMENT WITH LOW FRICTION CHARACTERISTICS

Priority: US20080043531 20080409 US20080043531P 20080409 EP20090729739 20090409
WO2009US39985 20090409 US20090420847 20090409 US20120680144 20121119

Family:

Publication number	Publication date	Application number	Application date
AU2009233780 AA	20091015	AU20090233780	20090409
AU2009233780 BB	20130124	AU20090233780	20090409
CA2720772 AA	20101006	CA20092720772	20090409
CA2720772 C	20170103	CA20092720772	20090409
DE602009016379 D1	20130808	DE200960016379T	20090409
EP2285247 A1	20110223	EP20090729739	20090409
EP2285247 B1	20130612	EP20090729739	20090409
HK1154465 A1	20131025	HK20110108865	20110823
HK1154465 A1	20120427	HK20110108865	20110823
HK1154465 B	20131025	HK20110108865	20110823
US2009255038 AA	20091015	US20090420847	20090409
US2013074250 AA	20130328	US20120680144	20121119
US8327469 BB	20121211	US20090420847	20090409
US8650668 BB	20140218	US20120680144	20121119
WO09126760 A1	20091015	WO2009US39985	20090409

Probable Assignee: LION GROUP INC

Assignee(s):(std): CURTIS NICHOLAS J ; LION APPAREL INC

Assignee(s): LION APPAREL INC DAYTON ; LION GROUP INC ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS

Inventor(s):(std): CURTIS NICHOLAS J

Inventor(s): NICHOLAS J CURTIS

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; MARKS AND CLERK LUXEMBOURG LLP; ASQUITH JULIAN PETER; MARKS AND CLERK; THOMPSON HINE LLP INTELLECTUAL PROPERTY GROUP; THOMPSON HINE LLP; ELLEMAN STEVEN 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

International class (IPC 8-9): A41B A41B17/00 A41D A41D13/00 A41D27/02 A41D3/02 A41D3/04 A41D31/00 A62B A62B17/00 A62B5/00 D03D1/00 D03D15/00 (Advanced/Invention); A41B17/00 A41D13/00 A41D27/02 A41D3/00 A41D31/00 A62B17/00 D03D15/00 (Core/Invention); A41D A62B (Subclass/Invention)

CPC: D03D1/0035 A62B5/00 A41D27/02 A41D31/0027

European class: A41D27/02 A41D31/00C4L

US class: 139/420.00RS 139/420R 2/455 2/455P 2/458 2/81 2/81S 2/82 2/82S 2/87 2/87S 2/93 2/93S

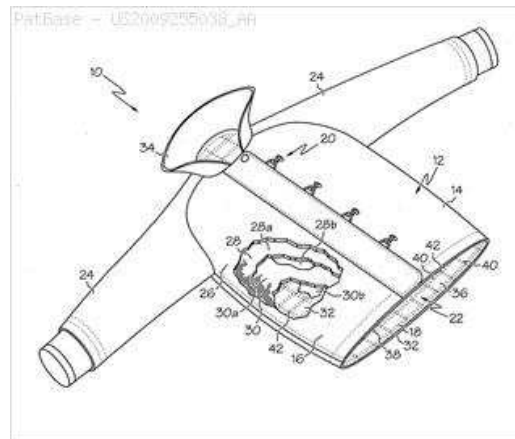
[Classification Explorer](#)

Cited documents: US7393800 BB, US6624179 BA, US6624096 BB, US6430754 BA, US6247179 BA, US5928971 A, US5920905 A, US5860163 A, US5858888 A, US5819316 A, US5724676 A, US5724673 A, US5691404 A, US5691040 A, US5539928 A, US5299602 A, US5209602 A, US2006143809 AA, US2006084337 AA, US2005186875 AA, US2004152378 AA, US2004055660 AA, US2003228812 AA,

Forward Citations: WO17214304, WO12125599, WO12125599, USD811750, USD681350, US9938645, US9526926,

Abstract:

A protective garment including an outer shell and an inner liner coupled to the outer shell and positioned such that the inner liner is positioned between a wearer and the outer shell when the garment is worn. The inner liner includes a base material and a high lubricity material which has a higher lubricity than the base material. The high lubricity material is woven into the base material to form a plurality of discrete contact areas in which a plurality of filaments of the high lubricity material are immediately adjacent to each other.



8) Family number: 48910223 (US2011113534A)

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Title: IMPACT RESISTANT COMPOSITE ARTICLE
Priority: US20090619799 20091117 WO2010US56130 20101110
Family:

Publication number	Publication date	Application number	Application date
BR112012011638 A2	20160628	BR20121111638	20101110
CA2779370 AA	20110526	CA20102779370	20101110
CN102666088 A	20120912	CN201080052012	20101110
EP2501542 A1	20120926	EP20100779402	20101110
JP2013510745 T2	20130328	JP20120539945T	20101110
JP5818371 B2	20151118	JP20120539945T	20101110
US2011113534 AA	20110519	US20090619799	20091117
WO11062816 A1	20110526	WO2010US56130	20101110

Probable Assignee: E I DU PONT DE NEMOURS AND CO
Assignee(s):(std): DU PONT ; HANKS JEFFREY ALAN ; SAUER BRYAN BENEDICT
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 ; EIDU PONT DE NEMOURS AND CO
Inventor(s):(std): HANKS JEFFREY ALAN ; SAUER BRYAN BENEDICT ; ALAN HANKS JEFFREY ; BENEDICT SAUER BRYAN
Inventor(s): BRYAN BENEDICT SAUER ; JEFFREY ALAN HANKS
Agent(s): TORYS LLP; DANNENBERGER OLIVER ANDRE; YAMASAKI KAZUO; HAKODA ATSUSHI; ICHIKAWA SATSUKI; KUMAKURA YOSHIO; ASAI KENJI; BENJAMIN STEVEN C
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
International class (IPC 8-9): A42B3/00 A45C3/02 B32B27/12 B32B27/28 B32B27/30 B32B5/26 B32B5/28 B32B7/02 F41H1/04 F41H5/00 F41H5/04 (Advanced/Invention)
CPC: Y10T428/24942 F41H5/0478 B32B5/26 B32B7/04
European class: B32B5/26 B32B7/04 F41H5/04F2
US class: 2/411 2/411P 428/212 428/212S

[Classification Explorer](#)

Cited documents: WO09109632 A1, WO08137218 A1, WO08121677 A1, WO08097355 A2, WO08097355, US7458103 BB, US7153790 BB, US6990886 BB, US57260784, US56981884, US5330820 A, US4879165 A, US4678702 A, US4623574 A, US4599267 A, US4551296 A, US4536536 A, US4457985 A, US4413110 A, US4356138 A, US4137394 A, US3404134 A, US259266 A, US2011117351 AA, US2010180940 AA, US2008268733 AA, US2008268733, US2008064280 AA, US2007154694 AA, US2007117483 AA, US2005282450 AA, US0268733, JP2010503564 T2, JP2010503564, JP2009517623 T2, JP2009517623, JP2007533942 T2, JP2007533942, JP2005523179 T2, JP2005523179, GB359019 A, GB259266 A, GB2051667 A1, EP0064167 A1, DE3004699 A1, CN1678878 A, CN101511580 A, CN101370649 A,
Forward Citations: WO17025725, WO15130376, WO13072668, USRE45778, US9816788, US9493685, US9464872, US9278515, US9238332, US8895138, US2016116257, US2013034656, US2012192339, US2011117351, US2010325851, EP2780659, CN106313729, CN102706219,

Abstract:

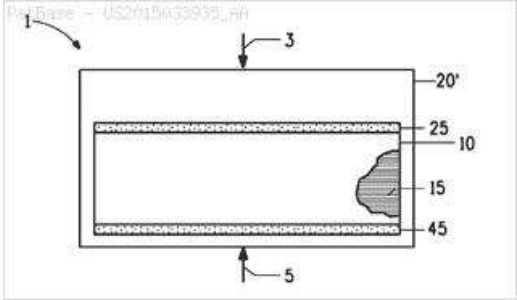
An impact resistant composite article has at least two or more fibrous fabric layers and a polymeric layer disposed between at least some of the fabric layers. The peel strength measured at 20 degrees centigrade between the fabric layer an adjacent polymeric layer after pressing for 30 minutes at 500 psi and 160 degrees centigrade is less than 1 kg/cm, and where the weight percent of polymeric resin relative to the resin plus fabric is greater than 5 percent.

Title:	ENVIRONMENTALLY RESISTANT BALLISTIC COMPOSITE BASED ON A FLUOROCARBON-MODIFIED MATRIX BINDER																																																																																				
Priority:	US20070729256 20070328		EP20080744431 20080327		WO2008US58368 20080327																																																																																
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>CA2681601 AA</td><td>20081009</td><td>CA20082681601</td><td>20080327</td></tr><tr><td>CA2681601 C</td><td>20180424</td><td>CA20082681601</td><td>20080327</td></tr><tr><td>CN101680731 A</td><td>20100324</td><td>CN200880017304</td><td>20080327</td></tr><tr><td>CN101680731 B</td><td>20140312</td><td>CN200880017304</td><td>20080327</td></tr><tr><td>EP2140222 A1</td><td>20100106</td><td>EP20080744431</td><td>20080327</td></tr><tr><td>EP2140222 B1</td><td>20170315</td><td>EP20080744431</td><td>20080327</td></tr><tr><td>ES2625890 T3</td><td>20170720</td><td>ES20080744431T</td><td>20080327</td></tr><tr><td>IL201120 A0</td><td>20100517</td><td>IL20090201120</td><td>20090923</td></tr><tr><td>IL201120 A1</td><td>20131128</td><td>IL20080201120</td><td>20080327</td></tr><tr><td>IN06122DN2009 A</td><td>20100618</td><td>IN2009DN06122</td><td>20090924</td></tr><tr><td>JP2010531243 T2</td><td>20100924</td><td>JP20100501210T</td><td>20080327</td></tr><tr><td>JP5329525 B2</td><td>20131030</td><td>JP20100501210T</td><td>20080327</td></tr><tr><td>MX2009010140 A1</td><td>20091102</td><td>MX20090010140</td><td>20080327</td></tr><tr><td>TH101219 A</td><td>20100430</td><td>TH20081001631</td><td>20080328</td></tr><tr><td>TW200902931 A</td><td>20090116</td><td>TW20080111545</td><td>20080328</td></tr><tr><td>TWI427261 B</td><td>20140221</td><td>TW20080111545</td><td>20080328</td></tr><tr><td>US2011203449 AA</td><td>20110825</td><td>US20070729256</td><td>20070328</td></tr><tr><td>US8017530 BA</td><td>20110913</td><td>US20070729256</td><td>20070328</td></tr><tr><td>WO08121677 A1</td><td>20081009</td><td>WO2008US58368</td><td>20080327</td></tr></table>					Publication number	Publication date	Application number	Application date	CA2681601 AA	20081009	CA20082681601	20080327	CA2681601 C	20180424	CA20082681601	20080327	CN101680731 A	20100324	CN200880017304	20080327	CN101680731 B	20140312	CN200880017304	20080327	EP2140222 A1	20100106	EP20080744431	20080327	EP2140222 B1	20170315	EP20080744431	20080327	ES2625890 T3	20170720	ES20080744431T	20080327	IL201120 A0	20100517	IL20090201120	20090923	IL201120 A1	20131128	IL20080201120	20080327	IN06122DN2009 A	20100618	IN2009DN06122	20090924	JP2010531243 T2	20100924	JP20100501210T	20080327	JP5329525 B2	20131030	JP20100501210T	20080327	MX2009010140 A1	20091102	MX20090010140	20080327	TH101219 A	20100430	TH20081001631	20080328	TW200902931 A	20090116	TW20080111545	20080328	TWI427261 B	20140221	TW20080111545	20080328	US2011203449 AA	20110825	US20070729256	20070328	US8017530 BA	20110913	US20070729256	20070328	WO08121677 A1	20081009	WO2008US58368	20080327
Publication number	Publication date	Application number	Application date																																																																																		
CA2681601 AA	20081009	CA20082681601	20080327																																																																																		
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Probable Assignee:	HONEYWELL INT INC																																																																																				
Assignee(s):(std):	BHATNAGAR ASHOK ; HONEYWELL INT INC ; KLEIN RALF ; WAGNER LORI L ; HURST DAVID A ; ARDIFF HENRY G ; ARVIDSON BRIAN D																																																																																				
Assignee(s):	HONEYWELL INTERNATIONAL INC																																																																																				
Inventor(s):(std):	RALF KLEIN ; ASHOK BHATNAGAR ; WAGNER LORI L ; KLEIN RALF ; HURST DAVID A ; BHATNAGAR ASHOK ; ARVIDSON BRIAN D ; ARDIFF HENRY G																																																																																				
Inventor(s):	LORI L WAGNER ; HENRY G ARDIFF ; DAVID A HURST ; BRIAN D ARVIDSON ; ARVIDSON BRIAN D AND																																																																																				
Agent(s):	GOWLING WLG CANADA LLP; HALEY STEPHEN; CROOKS ELIZABETH CAROLINE; LEHMANN MARIA ISABEL; REINHOLD COHN AND PARTNERS; SOMA TAKAYOSHI; ONO SHINJIRO; SHAMOTO ICHIO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; BEATUS CARRIE																																																																																				
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																																																																																				
International class (IPC 8-9):	B05D5/00 B05D7/00 B32B27/04 B32B27/30 B32B37/12 B32B37/14 B32B5/02 B32B5/28 C08J5/04 C08J5/06 D03D1/00 D03D15/12 D04H1/58 D04H1/587 D04H1/593 D06M15/263 D06M15/347 D06M15/39 D06M15/507 D06M15/564 D06M15/59 D06M15/693 F41H5/02 F41H5/04 (Advanced/Invention); A41D13/00 D06M15/256 D06M15/277 D06M15/353 D06M15/576 (Advanced/Non-invention); B32B5/22 C08J5/04 C08L F41H5/00 (Core/Invention); B32B F41H (Subclass/Invention)																																																																																				
International class (IPC 1-7):	C08L F41H5/04																																																																																				
CPC:	Y10S428/911 B32B5/28 C08J5/04 C08J5/06 C08J2327/12 F41H5/0485 Y10T442/2615																																																																																				
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US class:	156/296 156/296S 2/2.5 427/401 427/401S 428/911 442/134 89/36.02 89/36.020P 89/903 89/903S																																																																																				
Classification Explorer																																																																																					
Cited documents:	US6838401 BA, US6335094 BA, US6326094 BA, US6034004 A, US5587230 A, US5471906 A, US5354605 A, US5229199 A, US4916000 A, US4680221 A, US4613535 A, US2007117483 AA, JP2005538334 T2, JP2005538334, JP2005523179 T2, JP2005523179, JP2004506539 T2, JP2004506539, JP2004502884 T2, JP2004502884, JP2004263360 A2, JP2004263360, JP2002309482 A2, JP2002309482, EP1396698 A1, EP1396572 A1, EP0620410 A1,																																																																																				
Forward Citations:	WO15071275, WO13151950, WO12145051, WO11062816, US9562744, US9513088, US9296174, US9134096, US9091512, US8895138, US2014360346, US2013295805, US2013284007, US2013075961, US2012270454, US2010307629, JP2015501392, JP2014509377, EP2833746, EP2751329, EP2222910, EP2222910, CN105814398, CN105814398, CN103119391, CN102666088,																																																																																				
Abstract:	Ballistic resistant fabrics and articles that retain their superior ballistic resistance performance after exposure to liquids such as sea water and organic solvents, such as gasoline and other petroleum-based products. The fabrics incorporate a fluorine-containing polymeric binder composition and an optional surfactant.																																																																																				

Title:	BALLISTIC COMPOSITE CONTAINING A THERMOPLASTIC OVERLAY			
Priority:	US20120604763P 20120229		US20130379812 20130228	
Family:	WO2013US28260 20130228			
	Publication number	Publication date	Application number	Application date
	CA2866498 AA	20140828	CA20132866498	20130228
	EP2820372 A2	20150107	EP20130794488	20130228
	EP2820372 A4	20151028	EP20130794488	20130228
	US2015033935 AA	20150205	US20130379812	20130228
	WO13176720 A2	20131128	WO2013US28260	20130228
	WO13176720 A3	20141009	WO2013US28260	20130228
Probable Assignee:	E I DUPONT DE NEMOURS AND CO			

Assignee(s):(std): DU PONT
Assignee(s): E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND CO1007 MARKET STREETWILMINGTONDE19898US ; VANARSDALEN BRYCE ; E I DUPONT DE NEMOURS AND CO ; BOYER THOMAS D ; COVELLI CARMEN A
Inventor(s):(std): VANARSDALEN BRYCE ; COVELLI CARMEN A ; BOYER THOMAS D
Inventor(s): BOYER THOMAS DUS ; VANARSDALEN BRYCEUS ; COVELLI CARMEN AUS
Agent(s): TORYS LLP; HEINEMANN MONICA; DOBSON KEVIN 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 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
International class (IPC 8-9): A42B3/04 B32B27/02 B32B27/04 B32B27/12 B32B5/22 B32B5/26 B32B7/12 F41H1/02 F41H1/04 F41H5/04 (Advanced/Invention); F41H1/04 (Advanced/Non-invention)
CPC: F41H5/0478 B32B27/12 F41H1/04 B32B3/04 B32B5/022 B32B5/08 B32B7/12 B32B27/36 B32B27/365 B32B2262/0238 B32B2262/0253 B32B2274/00 B32B2307/52 B32B2307/536 B32B2307/54 B32B2307/558 B32B2571/02
US class: 89/36.02
[Classification Explorer](#)
Cited documents: WO11040915 A1, US5167876 A, US2011217504 AA, US2011203024 AA, US2009145288 AA, US2009025111 AA, US2008241494 AA, US2007094760 AA, JP2004058517 A2, GB2124887 A1, DE102010021125 A1
Forward Citations: WO17025725, WO15156864, US9835417, US9435615, US10081159,

Abstract:
Ballistic composite articles comprising a fabric section, an overlay section disposed on the strikeface of the composite article and comprising a thermoplastic resin, and optionally an adhesive layer disposed between the fabric section and the overlay section are described. The ballistic composite articles can provide comparable or improved protection against projectile threats relative to conventional ballistic composites consisting only of a same-type fabric section having comparable area density, as evidenced by comparable V50 values and/lower backface deformation values when tested under the same conditions.



11) Family number: 48517449 (US2011077331A)

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Title: POLYCARBONATE RESIN COMPOSITION CONTAINING TRIAZINE COMPOUND AND MOLDED ARTICLE USING THE SAME
Priority: JP20090223468 20090928 JP20100009539 20100119 EP20100180009 20100927
JP20100216101 20100927
Family:

Publication number	Publication date	Application number	Application date
DE602010011441 D1	20140102	DE201060011441T	20100927
EP2301995 A1	20110330	EP20100180009	20100927
EP2301995 B1	20131106	EP20100180009	20100927
JP2011168764 A2	20110901	JP20100216101	20100927
JP5564382 B2	20140730	JP20100216101	20100927
US2011077331 AA	20110331	US20100891148	20100927
US8748520 BB	20140610	US20100891148	20100927

Probable Assignee: FUJIFILM HOLDINGS CORP
Assignee(s):(std): AMASAKI ICHIRO ; FUJIFILM CORP ; FUJIFILM HOLDINGS CORP ; KIMURA KEIZO ; KITAGAWA TAKASHI ; WATANABE YUKIE
Inventor(s):(std): AMAGASAKI KAZUMICHI ; WATANABE YUKIE ; AMASAKI ICHIRO ; KIMURA KEIZO ; KITAGAWA TAKASHI
Agent(s): HOFFMANN EITL PATENT U RECHTSANWALTE PARTMBB; HOFFMANN EITL; BUCHANAN INGERSOLL AND ROONEY PC
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
International class (IPC 8-9): C08K5/13 C08K5/3492 C08K5/49 C08L69/00 G02B1/04 H01M14/00 (Advanced/Invention)
CPC: C08K5/3492
European class: C08K5/3492
US class: 524/100
[Classification Explorer](#)
Cited documents: WO9418278 A2, WO0236579 A1, WO0228854 A1, WO0014077 A1, US6867250 BA, US5942564 A, US5597854 A, US5354794 A, US4962142 A, US4962142, US2011272648 AA, US2007215845 AA, US2004013619 AA, US2003158300 AA, US2003146412 AA, US04962142, JPT2004504414, JPT08501291, JPS63264748, JPS58209735, JP8501291 T2, JP8272058 A2, JP7188190 A2, JP63264748 A2, JP6056466 A2, JP58209735 A2, JP5345639 A2, JP5339033 A2, JP4191851 A2, JP3965631 B2, JP3965631 B2, JP2009209343 A2, JP2009185291 A2, JP2009185291, JP2009096974 A2, JP2008273950 A2,

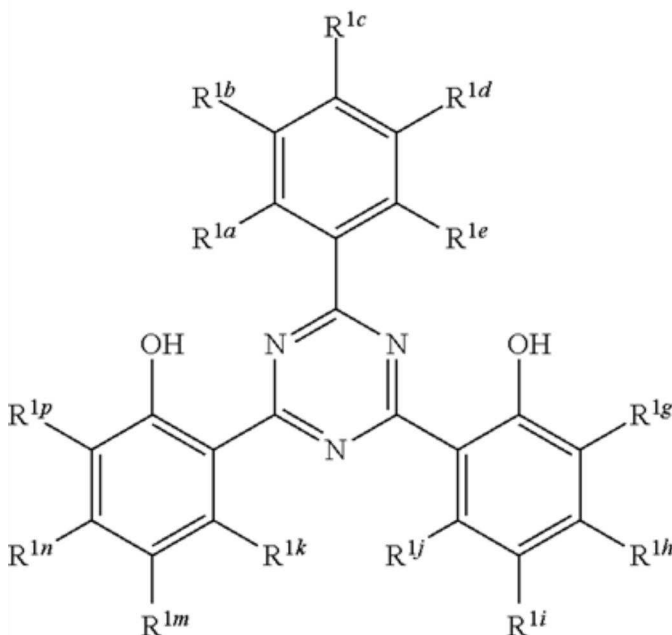
JP2007298648 A2, JP2007298648, JP2006324556 A2, JP2006324556, JP200554032, JP2005055615 A2, JP2005054032 A2, JP2005054032, JP2004504414 T2, JP2004137471 A2, JP2003211538 A2, JP2002524452 T2, JP2002113937 A2, JP2002053824 A2, JP2001524473 T2, JP2001220385 A2, JP11315072 A2, JP11071355 A2, JP10182621 A2, JP10182621, JP10044352 A2, GB2016017 A1, EP1310492 A1, EP1213283 A2,

Forward Citations: JP6176066, JP5954201, JP2015093888, JP2014144583,

Abstract:

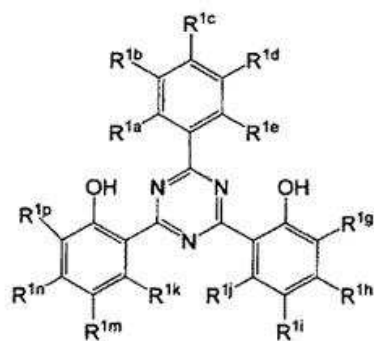
A polycarbonate resin composition comprising a compound represented by the following formula (1):

(1)



wherein each of R^{1a}, R^{1b}, R^{1c}, R^{1d} and R^{1e} independently represents a hydrogen atom or a monovalent substituent provided that OH is excluded, at least one of the substituents represents a substituent having a Hammett's σ_p value of 0.3 or more, and the substituents may be combined each other to form a ring; and each of R^{1g}, R^{1h}, R¹ⁱ, R^{1j}, R^{1k}, R^{1l}, R^{1m}, R¹ⁿ and R^{1p} independently represents a hydrogen atom or a monovalent substituent, and the substituents may be combined each other to form a ring.

PatBase - JP2011168764_A2



(1)

12) Family number: 28584459 (JP2003113357A)

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Title: METHOD FOR PRODUCING WATER-REPELLENT HOT-MELTING SHEET

Priority: JP20010307037 20011003

Family:

Publication number	Publication date	Application number	Application date
AU200227644 A1	20030410	AU20020027644	20020325
AU200227644 A5	20030410	AU20020027644	20020325
AU783940 B2	20060105	AU20020027644	20020325
JP2003113357 A2	20030418	JP20010307037	20011003
JP3824512 B2	20060920	JP20010307037	20011003
TH61502 A	20040409	TH20021003390	20020909
TH63586 B	20180711	TH20021003390	20020909

Probable Assignee: NAGOYA OIL CHEM CO LTD

Assignee(s):(std): NAGOYA OIL CHEM CO LTD ; NAGOYA OILCHEMICAL

Assignee(s): NAGOYA OILCHEMICAL CO ; NAGOYA OILCHEMICAL CO LTD

Inventor(s):(std): KIOKA NORIHIKO ; OGAWA MASANORI ; KINOOKA NOBUHIKO ; ITO KUNINORI ; NORIHIKO KIOKA ; MASANORI OGAWA ; KUNINORI ITO

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD

International class (IPC 8-9): B60R13/08 C09J11/00 C09J131/04 C09J165/00 C09J177/00 C09J201/00 C09J7/02 C09J7/04 D04H1/58 D04H1/587 (Advanced/Invention); C09J131/04 C09J165/00 (Core/Invention)

International class (IPC 1-7): B60R13/08 C09J11/00 C09J131/04 C09J165/00 C09J177/00 C09J201/00 C09J7/02 C09J7/04 C09J9/00 D04H1/58

[Classification Explorer](#)

Cited documents: WO0052110 A1, JP9125028, JP2000319615, JP2000309772, JP11152456,

Forward Citations: US9657511, US8864926, US10021319, JP4440054, JP2016108364, JP2008505206, JP2007056405, JP2007034254, JP2006083505, CN103468163,

Abstract:
 PROBLEM TO BE SOLVED: To provide a method for producing a hot-melting sheet having air permeability and water repellency.
 SOLUTION: A fiber sheet 3A is impregnated with an aqueous solution of a water repellent and then, an aqueous dispersion of hot-melting adhesive powder 4 having structural viscosity is sprayed in undried state to the surface of the fiber sheet 3A and the dispersion is dried to provide the water-repellent hot-melting sheet 1 in which the hot-melting adhesive powder 4 is attached to the upper end of fluff on the surface of the fiber sheet 3A. The water- repellent hot-melting sheet 1 is excellent in hot-melting property and has good air permeability and water repellency.

Title: CONTAMINATION RESISTANT FIBER SHEET

Priority: US20030339479 20030109 US20050284686 20051122

Family:

Publication number	Publication date	Application number	Application date
US2004137812 AA	20040715	US20030339479	20030109
US2006084335 AA	20060420	US20050284686	20051122
US7294391 BB	20071113	US20030339479	20030109

Probable Assignee: SEKISUI NANO COAT TECHNOLOGY CO LTD

Assignee(s):(std): SUZUTORA KK

Assignee(s): KABUSHIKI KAISHA SUZUTORA ; MANABE KATSUhide ; NAKAJIMA EIGO ; SEKISUI NANO COAT
TECHNOLOGY CO LTD ; SUZUKI MASAYUKI ; SUZUKI TOSHIKAZU

Inventor(s):(std): MANABE KATSUhide ; NAKAJIMA EIGO ; SUZUKI MASAYUKI ; SUZUKI TOSHIKAZU

Agent(s): PITNEY HARDIN LLP; DAY PITNEY LLP

International class (IPC 8-9): B32B18/00 B32B27/02 B32B27/04 B32B27/12 B32B27/14 B32B5/16 C23C14/08 C23C14/10 C23C14/56 D06M11/79 (Advanced/Invention);
B32B18/00 B32B27/02 B32B27/04 B32B27/12 B32B27/14 B32B5/16 C23C14/08 C23C14/10 C23C14/56 D06M11/00 (Core/Invention)

International class (IPC 1-7): B32B27/04

CPC: D06M11/79 C23C14/086 C23C14/10 C23C14/562 D06M2200/05 D21H19/38 D21H19/82 D21H27/20 Y10T428/24926 Y10T442/20 Y10T442/2033 Y10T442/2041 Y10T442/2057 Y10T442/2082 Y10T442/2139 Y10T442/2164 Y10T442/2189 Y10T442/2213 Y10T442/2238 Y10T442/2279 Y10T442/2525 Y10T442/273 Y10T442/2861 Y10T442/2885 Y10T442/2893 Y10T442/2902

European class: C23C14/08L C23C14/10 C23C14/56B D06M11/79 D21H19/38 N06M200/05 N21H19/82 N21H27/20

US class: 428/210 442/123 442/123S 442/148 442/148S 442/164 442/164S 442/167 442/167S 442/168 442/168S 442/169 442/169S 442/59 442/59P 442/63 442/63P 442/64 442/64S 442/66 442/69 442/69S 442/76 442/79 442/82 442/85 442/88 442/93

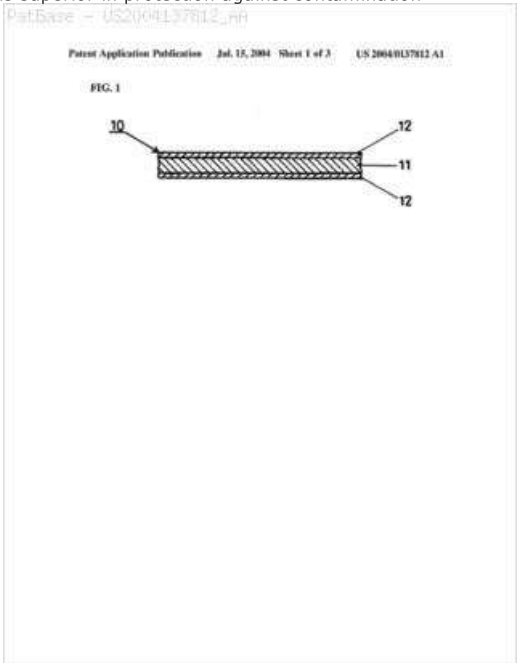
[Classification Explorer](#)

Cited documents: US6964731 BA, US6921579 BB, US6875478 BB, US6579599 BA, US6165598 A, US6156838 A, US6105500 A, US5733660 A, US5030509 A, US4971673 A, US4337155 A, US3808028 A, US3283708 A, US2008260998 AA, US2002182383 AA,

Forward Citations: US8795718, US8575045, US7757340, US2014360346, US2014338297, US2010325851, US2009291124,

Abstract:

A fiber sheet composed of knitted, woven, or non-woven fiber, which is resistant against contamination, and such contamination is easily washed off, and is durable, and suitable for use as materials to make curtains, tapestries, screens, flags, wallpaper, and sliding screen door(fusuma), for both indoor and outdoor environments. The fiber sheet is coated on its both sides of the fiber by ceramics composed of oxidized, nitrogenous, or carbonized forms of metals such as tin, titanium, aluminum, and other metals, forming a thin contamination resistant coating. Typically, the contamination resistant coating comprises SiO2 or SnO2 or a combination/mixture of the two substances, and such coating is hard and is superior in protection against contamination



14) Family number: 28163662 (US2002020992A)

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Title: SIDE AIRBAG
Priority: JP20000242120 20000810 JP20010185725 20010620 JP20010233641 20010801

Family:	Publication number	Publication date	Application number	Application date
	EP1179454 A2	20020213	EP20010119131	20010808
	EP1179454 A3	20030312	EP20010119131	20010808
	JP2003072504 A2	20030312	JP20010233641	20010801
	JP4615778 B2	20110119	JP20010233641	20010801
	US2002020992 AA	20020221	US20010924943	20010809
	US7537238 BB	20090526	US20010924943	20010809

Probable Assignee: NIHON PLAST CO LTD
Assignee(s):(std): NIHON PLAST CO LTD
Assignee(s): NIPPON PLAST CO LTD ; KANUMA TADAO ; NIHON PLAST CO
Inventor(s):(std): KANUMA TADAO ; SHIKANUMA TADAO
Agent(s): FOLEY AND LARDNER LLP
Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
International class (IPC 8-9): B60R21/16 B60R21/20 B60R21/213 B60R21/23 B60R21/232 B60R21/235 (Advanced/Invention); B60R21/16 B60R21/20 (Core/Invention)
International class (IPC 1-7): B60R21/16 B60R21/22 C08J5/12 C09J9/00 D06M15/643 D06M17/04
CPC: Y10T428/13 B60R21/232 B60R21/235 B60R2021/235S5 Y10T442/2164
European class: B60R21/16B2V B60R21/16B4 B60R21/232 B60R21/235 L60R21/235S5
US class: 280/728.1 280/730.2 280/743.1 428/34.1 442/79

Cited documents:

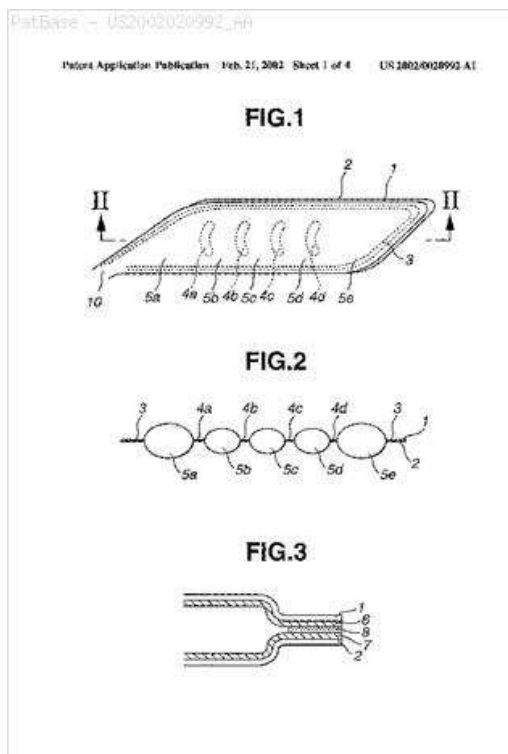
WO9928164 A1, WO9914082 A1, WO9812075 A1, US6420037 BA, US6283507 BA, US6177366 BA, US6177366 B1, US5482317 A, US5359735 A, US4587354 A, JP9309927 A2, JP9124936 A2, JP6316038 A2, JP2114035 A2, JP2001001854 A2, JP11293541, JP11232935, JP11227550 A2, JP11156955, JP11034785, JP10129380 A2, EP0962363 A1, EP0866164 A1, DE4134995 C1,

Forward Citations:

WO14051385, WO14051385, WO10148297, WO10148297, WO10144791, WO10144791, WO09143090, WO09143090, WO09120025, WO09008350, WO08135750, WO08135750, WO08080791, WO08080791, WO07049538, WO03059702, US9862348, US9815430, US9604591, US9352718, US9347161, US9242616, US9039092, US8960714, US8851516, US8778130, US8729170, US8585081, US8573637, US8415735, US8408595, US8376401, US8366144, US8348305, US8287685, US8276938, US8240708, US8132826, US8109534, US7976058, US7798082, US7789417, US7731224, US7635508, US7557052, US7549669, US7407898, US7287478, US7150803, US6846004, US2016090059, US2015115574, US2012280480, US2011108904, US2011018244, US2011012331, US2010297903, US2010171293, US2010109305, US2010078919, US2010015407, US2009243268, US2009179410, US2009167007, US2009096198, US2007262575, US2007205589, US2006237957, US2006217018, US2006208466, US2006163853, US2006163849, US2005134022, US2005121891, US2004232682, US2004147186, US2004058601, US10040417, KR101367401, KR101106522, KR101103804, JP6256328, JP5389647, JP5389647, JP4660312, JP2016117387, JP2011523911, JP2011518703, JP2010132268, JP2009255677, JP2009008350, JP2008230291, JP2007118817, JP2007038694, JP2007038693, JP2006175934, JP2006159990, JP2006096258, JP2005313877, FR2910909, EP2174841, EP2174841, EP2020344, EP2020344, EP1683686, EP1342755, DE202005001182, CN104812955, CN103876690, CN103876690, CN102066511,

Abstract:

A side airbag includes two main-body fabrics superimposed to have one sides opposed to each other and including a textile having 400 dtex or less yam, 200 grams per square metre or less weight, and 2,000 or more cover factor, thermosetting silicone placed at least one sides of the two fabrics, and solventless addition room-temperature-vulcanizing adhesive silicone interposed between the two fabrics at a junction and having 20 or less JIS-A hardness and 800 percent or more initial fractural elongation after cure.

**15) Family number: 34548679 (US2001017102A)**

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Title: METHOD AND APPARATUS FOR CONTROLLED PLACEMENT OF A POLYMER COMPOSITION INTO A WEB

Priority:	US19880319776	19880310	US19880319777	19880310	US19880319778	19880310
	US19880167630	19880314	US19880167643	19880314	US19880167797	19880314
	US19880167869	19880314	US19880170515	19880321	US19890319776	19890310
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	WO1989US01008	19890313	WO1989US01006	19890313	CA19890593680	19890314
	CA19890593681	19890314	AU19890033640	19890320	US19910680645	19910402
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	US19950486212	19950607	US19950487004	19950607	US19950479919	19950607
	US19950472568	19950607	US19950486651	19950607	US19950472480	19950607
	US19950487683	19950607	US19950476465	19950607	WO1996US03501	19960315
	WO1996US07102	19960516	WO1996US07000	19960516	WO1996US07000	19960516
	WO1996US07156	19960517	WO1996US07156	19960517	US19970963663	19971103
	US19970962698	19971103	US19970963636	19971103	US19970962700	19971130
	US19980014316	19980127	US19990406080	19990927	US20010982250	20011016

Family:

Publication number	Publication date	Application number	Application date
AT191523 E	20000415	AT19960920271T	19960517
AT195772 E	20000915	AT19960914668T	19960516
AT200114 E	20010415	AT19960915838T	19960516
AT254510 E	20031215	AT19960908808T	19960315
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Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LI LK LR LS LT LU LV MC MD MG MK ML MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN

International class (IPC 8-9): A41D31/00 A61F13/00 A61F13/15 A61F13/49 A61F13/53 A61F5/44 A61L15/16 A61L15/22 A61L15/26 A61L15/44 A61L15/52 B05C11/00 B05C11/02 B05C11/04 B05C3/172 B05C3/18 B05D1/26 B05D1/28 B05D3/12 B32B5/18 C07K1/22 C08J9/40 C08J9/42 C08L83/07 C09D183/07 C12Q1/70 C14C11/00 C14C9/00 D04H1/40 D04H1/42 D04H1/58 D04H1/64 D04H13/00 D06B15/08 D06M10/00 D06M10/10 D06M11/00 D06M15/256 D06M15/263 D06M15/356 D06M15/37 D06M15/564 D06M15/643 D06M15/653 D06M15/657 D06M23/00 D06M23/14 D06N3/00 D06N3/04 D06N3/12 D06N7/00 D21H17/59 D21H19/32 D21H23/38 D21H25/06 G01N33/544 G01N33/569 G01N33/573 (Advanced/Invention); A41D31/00 A61F5/44 A61L15/16 B05C11/04 B05D1/26 B05D3/12 B32B5/18 D04H1/40 D06M10/00 D06M11/00 D06N7/00 (Advanced/Non-invention); A41D31/00 A61F13/00 A61F13/15 A61F5/44 A61L15/16 B05C11/02 B05C3/00 B05C3/02 B05D1/26 B05D3/12 B32B5/18 C08J9/00 C09D183/07 C14C11/00 C14C9/00 D04H1/40 D04H1/42 D04H1/58 D04H1/64 D04H13/00 D06B15/00 D06M10/00 D06M11/00 D06M15/21 D06M15/37 D06N3/00 D06N3/12 D06N7/00 D21H17/00 D21H19/00 D21H23/00 D21H25/00 (Core/Invention); B05C11/02 (Core/Non-invention)

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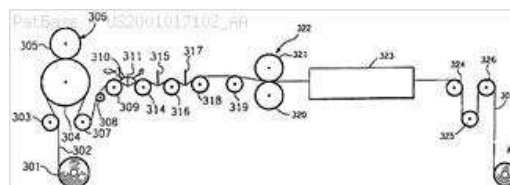
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CN102754946, CN102754946, CN102597363, CN101977769, CN101796245, AU773282, AU773282, AU759840, AU2009205603, AU2007231714, AU2007222059, AU2003213513,

Abstract:

The present invention relates to an apparatus for controlling the placement of a curable, shear-thinnable polymer composition into a porous web. The apparatus comprises means for applying tension, means for applying the polymer composition to one surface of the tensioned web, and means for shear thinning the composition and placing it into the web to encapsulate at least some of the structural elements of the web, leaving most of the interstitial spaces open. A preferred apparatus includes one or more process heads that has mounted thereto a rigid knife blade for engagement with the web. The knife blade is movable vertically and rotationally. The process head is also movable horizontally along the path of the web. The invention also relates to an apparatus for selectively placing the polymer composition in a substantially continuous region extending through the web so that the polymer composition fills the interstitial spaces and adheres adjacent structural elements of the web in the region. In the areas of the web above and below the filled region, at least some of the structural elements are encapsulated and most of the interstitial spaces are open.



16) Family number: 64814698 (US2017029663A)

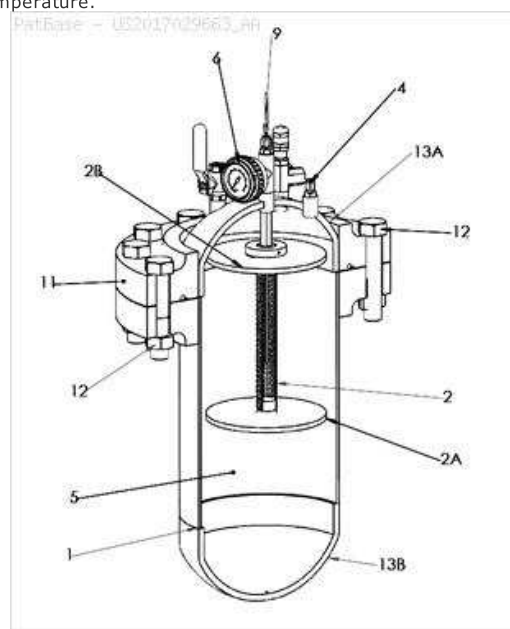
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Title:	HYPERBARIC PROCESS FOR APPLYING AND CURING AN ORGANIC POLYMERIZABLE TREATMENT			
Priority:	US20150199195P 20150730	WO2016US44904 20160729	US20160225739 20160801	
Family:	Publication number	Publication date	Application number	Application date
	CA2993257 AA	20180119	CA20162993257	20160729
	CN107849802 A	20180327	CN201680042851	20160729
	EP3329046 A1	20180606	EP20160751731	20160729
	JP2018528077 T2	20180927	JP20180525533T	20160729
	KR20180034578 A	20180404	KR20187005605	20160729

US2017029663 AA	20170202	US20160225739	20160801
US9902874 BB	20180227	US20160225739	20160801
WO17020018 A1	20170202	WO2016US44904	20160729

Probable Assignee: SELWYN GARY S
Assignee(s):(std): SELWYN GARY S
Assignee(s): GARY S SELWYN
Inventor(s):(std): SELWYN GARY S
Agent(s): SMART AND BIGGAR; PLOUGMANN VINGTOFT A S; COHN GARY C
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
International class (IPC 8-9): B01D61/00 B05C9/12 B05C9/14 B05D3/00 B05D3/02 B05D3/04 B05D7/24 C08J7/04 C09D127/12 C09D133/16 C09D183/04 D06M10/02 D06M11/00 D06M11/34 D06M14/02 D06M14/08 D06M15/263 D06M15/277 D06M15/643 D06M15/657 D06M15/705 H01L21/56 (Advanced/Invention); B05D3/02 B05D3/04 (Advanced/Non-invention)
CPC: C09D183/04 C08J7/04 C08J2383/04 C08J2433/08 B01D67/0093 B01D2323/42 B01D61/00 B05D3/007 B05D3/0254 B05D3/0486 D06M11/34 D06M14/02 D06M14/08 D06M15/263 D06M15/643 D06M15/705 D06M2200/12 H01L21/56 B05D3/04 C09D127/12 C09D133/16
US class: 427/539
[Classification Explorer](#)
Cited documents: WO15127479 A2, WO14031987 A2, US3449061 A, US2014220762 AA, US2008107822 AA, JP2011151226 A2, GB2279082 A1, EP0684648 A2, DE4016348 A1,

Abstract:
Substrates are coated with a curable composition that includes at least one free radical polymerizable monomer and a heat-activated polymerization initiator. The coating is applied to the substrate and cured thereon to produce the coating. Curing is performed by purging molecular air from the vessel containing the substrate, pressuring with an oxygen-deficient gas and then curing the fabric in the oxygen-deficient gas at elevated pressure and temperature.



17) Family number: 67839711 (WO17214304A1)

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Title: COATING MATERIALS, AND PERSONAL PROTECTIVE CLOTHING ITEMS COATED WITH THE COATING MATERIALS
Priority: US20160346588P 20160607 WO2017US36402 20170607
Family:

Publication number	Publication date	Application number	Application date
AU2017279537 AA	20181220	AU20170279537	20170607
CA3026649 AA	20181205	CA20173026649	20170607
WO17214304 A1	20171214	WO2017US36402	20170607

Probable Assignee: BATTELLE MEMORIAL INST
Assignee(s):(std): BATTELLE MEMORIAL INST
Assignee(s): CAIN ROBERT J ; EDWARDS ERIK W ; LALGUDI RAMANATHAN S ; SHQAU KRENAR
Inventor(s):(std): CAIN ROBERT J ; EDWARDS ERIK W ; LALGUDI RAMANATHAN S ; SHQAU KRENAR
Agent(s): SPRUSON AND FERGUSON; RIDOUT AND MAYBEE LLP; PRIOR PATRICIA L
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
International class (IPC 8-9): D06M11/36 D06M11/45 D06M13/513 D06M13/517 D06M15/19 D06M23/08 (Advanced/Invention)
CPC: D06M11/45 D06M11/36 D06M13/513 D06M13/517 D06M15/19 D06M23/08 D06M2200/30

Cited documents: WO15112810 A1, WO15112807 A1, WO15081151 A1, WO08085550 A2, US9000203 BB, US8973169 BB, US8883935 BB, US8719969 BB, US8701218 BB, US8650668 BB, US8522368 BB, US8479321 BB, US8332963 BB, US8327469 BB, US8104100 BB, US7996920 BB, US7958569 BB, US7913322 BB, US7879935 BB, US7395555 BB, US7168103 BB, US5645883 A, US4918210 A, US4066592 A, US2015224349 AA, KR20160011595 A, JP2000328439 A2, JP2000119956 A2, CN105200662 A,

Abstract:

Coating materials and coated personal protective clothing items incorporating the coating material are described. The coating material includes a polymeric component; a metal oxide component; and a catalytic component. The catalytic component includes a metal oxide or a mixed metal oxide which is an effective catalyst for an oxidation reaction. The coated personal protective clothing item includes a personal protective clothing substrate with a coating including the coating material.

18) Family number: 49336715 (US2012301696A)

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Title: POLYESTER RESIN COMPOSITION

Priority: JP20100009538 20100119 JP20100159143 20100713 JP20100261825 20101124
EP20110734576 20110113 WO2011JP50488 20110113

Family:

Publication number	Publication date	Application number	Application date
CN102712799 A	20121003	CN201180006529	20110113
CN102712799 B	20140604	CN201180006529	20110113
DE602011027095 D1	20160714	DE201160027095T	20110113
EP2527399 A1	20121128	EP20110734576	20110113
EP2527399 A4	20141210	EP20110734576	20110113
EP2527399 B1	20160601	EP20110734576	20110113
JP2012036359 A2	20120223	JP20100261825	20101124
JP5647872 B2	20150107	JP20100261825	20101124
US2012301696 AA	20121129	US20110522576	20110113
US8623990 BB	20140107	US20110522576	20110113
WO11089969 A1	20110728	WO2011JP50488	20110113

Probable Assignee: FUJIFILM HOLDINGS CORP

Assignee(s):(std): AMASAKI ICHIRO ; FUJI PHOTO FILM CO LTD ; NAGAI YOUICHI ; KIMURA KEIZO ; FUJIFILM CORP ; FUJIFILM HOLDINGS CORP ; WATANABE YUKIE

Inventor(s):(std): AMAGASAKI KAZUMICHI ; AMASAKI ICHIRO ; KIMURA KEIZO ; NAGAI YOICHI ; NAGAI YOUICHI ; WATANABE YUKIE ; YUKIE WATANABE ; YOUICHI NAGAI ; KEIZO KIMURA ; ICHIRO AMASAKI

Agent(s): MARKS AND CLERK LUXEMBOURG LLP; HOFFMANN EITLE; SUGHRUE MION PLLC; TAKAMATSU TAKESHI 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 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 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

International class (IPC 8-9): A01G9/14 C08G63/02 C08J5/18 C08K5/3477 C08K5/3492 C08L67/00 C08L67/02 C08L67/03 C08L67/04 D01F1/10 D01F6/62 D01F6/92 G02B5/30 G02F1/1335 H01L31/042 H01L31/048 H01L31/049 H01L51/44 (Advanced/Invention); C08G64/00 (Advanced/Non-invention)

CPC: C08J5/18 C08J2367/00 C08K5/3492 C08L67/02 D01F1/106 Y02E10/50 C08K5/3477 H01L31/02013 H01L31/049 D01F6/62 H01L31/048 C08L101/00

European class: C08J5/18 C08K5/3492 D01F1/10C H01L31/048 M08J367/00 Y02E10/50

US class: 428/220 524/100 524/216 528/271 528/272

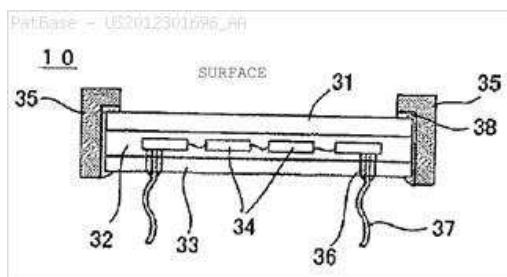
Classification Explorer

Cited documents: WO0014077 A1, US6225468 BA, US5942564 A, US5674668 A, US5618626 A, US5476937 A, US5354794 A, US4962142 A, US2007231502 AA, US2003080326 AA, JP9106039 A2, JP9106039, JP8501291 T2, JP8501291, JP7188190 A2, JP6145387 A2, JP6056466 A2, JP5345639 A2, JP5339033 A2, JP3965631 B2, JP2010261825 A2, JP2010159143 A2, JP2010027714 A2, JP2010009538 A2, JP2009531488 T2, JP2009531488, JP2009209343 A2, JP2009167416 A2, JP2009167416, JP2008273950 A2, JP2007152566 A2, JP2007152566, JP2007128943 A2, JP2006100527 A2, JP2005055615 A2, JP2003211538 A2, JP2003177235 A2, JP2002524452 T2, JP2002134767 A2, JP2002113937 A2, JP2002053824 A2, JP2001220385 A2, JP2000091610 A2, JP11315072, JP11261085, JP11214736, JP11040833, JP10044352, EP2177524 A1, DE19723582 A1, DE19701719 A1,

Forward Citations: WO12077470, WO12077469, US9511263, US9005052, US2017285236, US2016288992, US2016200933, US2016039189, US10099852, EP3076231, CN106583183, CN106583183, CN105474417, CN105474417,

Abstract:

To provide a polyester resin composition being able to maintain a long-wavelength ultraviolet-blocking effect for a long period of time, ensuring high solubility for a solvent, and having excellent light resistance. A polyester resin composition comprising a compound represented by the following formula (1) and a polyester resin: wherein each of R1a, R1b, R1c, R1d and R1e independently represents a hydrogen atom or a monovalent substituent excluding OH, at least one of the substituents represents a substituent having a positive Hammett's σ value, and the substituents may combine with each other to form a ring; and each of R1g, R1h, R1i, R1j, R1k, R1m, R1n and R1p independently represents a hydrogen atom or a monovalent substituent, and the substituents may combine with each other to form a ring.



19) Family number: 48911734 (US2011117351A)

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Title:	IMPACT RESISTANT COMPOSITE ARTICLE																																																												
Priority:	US20090619807 20091117		EP20100779405 20101110		WO2010US56148 20101110																																																								
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Publication number	Publication date	Application number	Application date																																																										
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Probable Assignee:	E I DU PONT DE NEMOURS AND CO																																																												
Assignee(s):(std):	DU PONT ; E I DU PONT DE NEMOURS AND CO ; KAMPERT WILLIAM GEORGE ; WALKER WILLIAM CHARLES ; WEST BRIAN CHARLES ; HANKS JEFFREY ALAN ; SAUER BRYAN BENEDICT																																																												
Assignee(s):	E I DU PONT DE NEMOURS AND COMPANY ; EI DU PONT DE NEMOURS AND CO ; EI DU PONT DE NEMOURS AND CO WILMINGTON ; EIDU PONT DE NEMOURS AND CO																																																												
Inventor(s):(std):	KAMPERT WILLIAM GEORGE ; WALKER WILLIAM CHARLES ; WEST BRIAN CHARLES ; HANKS JEFFREY ALAN ; SAUER BRYAN BENEDICT ; ALAN HANKS JEFFREY ; CHARLES WEST BRIAN ; BENEDICT SAUER BRYAN ; CHARLES WALKER WILLIAM ; GEORGE KAMPERT WILLIAM																																																												
Inventor(s):	WILLIAM CHARLES WALKER ; BRIAN CHARLES WEST ; JEFFREY ALAN HANKS ; BRYAN BENEDICT SAUER ; WILLIAM GEORGE KAMPERT																																																												
Agent(s):	TORYS LLP; ABITZ AND PARTNER PATENTANWAELTE MBB; DANNENBERGER OLIVER ANDRE; YAMASAKI KAZUO; HAKODA ATSUSHI; ICHIKAWA SATSUKI; KUMAKURA YOSHIO; ASAI KENJI; BENJAMIN STEVEN C																																																												
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US class:	156/278 156/278S 156/60 428/221 428/221P 428/297.4 428/297.7 525/919																																																												
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Abstract:

An impact resistant composite article has two or more layers of ballistic fabric and ionomer layers disposed between the fabric layers. The ionomer is highly neutralized so that it has essentially no melt flow. A process also for making such a composite article that involves deposition of an aqueous colloid of the ionomer onto the fabric, followed by drying.

20) Family number: 23469734 (DE3034548A1)

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Title:	PROTECTIVE EXPLOSIVE-PROOF COLLAR - IS MADE OF STEEL OR CERAMIC MATERIAL WITH LINING, AND LENGTHWISE FASTENING MEMBERS											
Priority:	DE19803034548 19800912											
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>DE3034548 A1</td><td>19820325</td><td>DE19803034548</td><td>19800912</td></tr></table>				Publication number	Publication date	Application number	Application date	DE3034548 A1	19820325	DE19803034548	19800912
Publication number	Publication date	Application number	Application date									
DE3034548 A1	19820325	DE19803034548	19800912									
Probable Assignee:	MEHLER V AG											
Assignee(s):(std):	MEHLER AG V ; MEHLER V AG											
Assignee(s):	VAL MEHLER AG											
Inventor(s):(std):	ZIEGLER AUGUST ; NEIDHARDT HELMUT DIPL CHEM DR ; LUETSCH MICHAEL ING GRAD ; BANIK NASS GEB BANIK											
Inventor(s):	BANIK KAROLA ING BANIK NASS GEB ; NEIDHARDT HELMUT DIPL CHEMDR ; LUETSCH MICHAEL ING											
International class	A41D13/05 (Advanced/Invention);											

(IPC 8-9): A41D13/05 (Core/Invention)

International class A41B3/00 A41D13/00

(IPC 1-7):

CPC: A41D13/0512

European class: A41D13/05 A41D13/05C

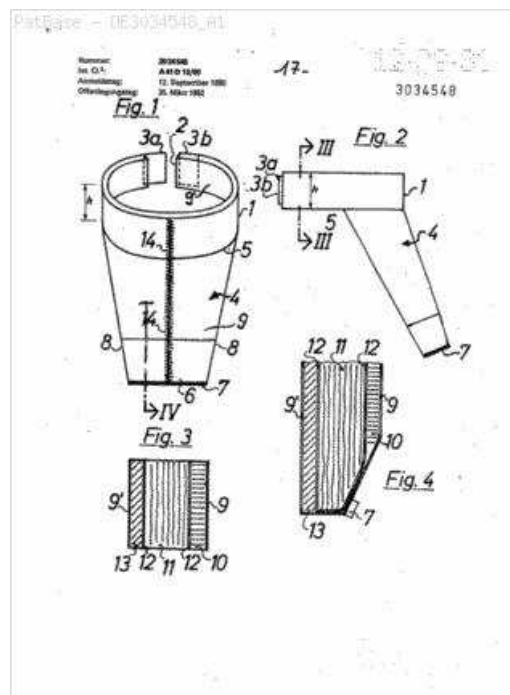
[Classification Explorer](#)

Cited documents: US3891996 A, DE7529537 U, DE7127694 U, DE2820688 A1, DE2651238 A1, DE1935007 U,

Forward Citations: DE29806627,

Abstract:

The protective collar for shielding the back, shoulders and chest against shots, splinters and/or explosives is made of an impact-resistant aramide-fibre lining. The outer protective material is of steel and/or ceramic which is divided, linked and/or coated, in order to increase its flexibility. The collar can be joined to a protective vest. The collar is fastened by a fastener, such as a Velcro (RTM) type fastener (3a,3b), and has a textile coating (9) on one side at least. A sliding clasp fastener (14) divides the collar (1) lengthwise and the chest shield (4).



21) Family number: 15773778 (US6430754B)

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Title: Firefighting garment

Priority: US20000517919 20000303
WO2001US04784 20010215

EP20010912744 20010215
EP20100177704 20010215

EP20060122328 20010215

Family:

Publication number	Publication date	Application number	Application date
AU2001241491 AA	20010917	AU20010241491	20010215
AU2001241491 BB	20050217	AU20010241491	20010215
AU200141491 A1	20010917	AU20010041491	20010215
AU200141491 A5	20010917	AU20010041491	20010215
CA2400668 AA	20020821	CA20012400668	20010215
CA2400668 C	20081118	CA20012400668	20010215
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DE60125328 T2	20070705	DE20016025328T	20010215
DE60143716 D1	20110203	DE20016043716	20010215
DE60149067 D1	20141204	DE20016049067	20010215
EP1259294 A1	20021127	EP20010912744	20010215
EP1259294 B1	20061220	EP20010912744	20010215
EP1741472 A2	20070110	EP20060122328	20010215
EP1741472 A3	20070221	EP20060122328	20010215
EP1741472 B1	20101222	EP20060122328	20010215
EP2260905 A1	20101215	EP20100177704	20010215
EP2260905 B1	20141022	EP20100177704	20010215
EP2263752 A1	20101222	EP20100177706	20010215
EP2263753 A1	20101222	EP20100177708	20010215
EP2263754 A1	20101222	EP20100177711	20010215
EP2263755 A1	20101222	EP20100177712	20010215
HK1099722 A1	20110729	HK20070106678	20070622
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HK1099722 A3	20070824	HK20070106678	20070622
HK1099722 B	20110729	HK20070106678	20070622
US6430754 BA	20020813	US20000517919	20000303
WO0166193 A1	20010913	WO2001US04784	20010215

Probable Assignee: LION GROUP INC

Assignee(s):(std): LION APPAREL INC
Assignee(s): LION APPAREL INC DAYTON ; LION GROUP INC ; TAYLOR FRANK P ; ALDRIDGE DONALD ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS
Inventor(s):(std): ALDRIDGE DONALD ; TAYLOR FRANK P ; TAYLOR P
Inventor(s): TAYLOR FRANK P DAYTON ; FRANK P TAYLOR ; DONALD ALDRIDGE ; ALDRIDGE DONALD NEW CARLISE
Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; GOWLING LAFLEUR HENDERSON LLP; MARKS AND CLERK LUXEMBOURG LLP; ASQUITH JULIAN PETER; MARKS AND CLERK
Designated states: AT AU BE CA CH CY DE DK ES FI FR GB GR IE IT LU MC MX NL PT SE TR
International class (IPC 8-9): A41D A41D13/00 A41D31/00 A62B A62B17/00 (Advanced/Invention); A41D A62B (Subclass/Invention)
International class (IPC 1-7): A41D013/00 A41D13/00 A62B017/00 A62B17/00
CPC: A41D13/00 A41D31/0027 A62B17/003
European class: A41D13/00 A41D31/00C4L A62B17/00D
US class: 2/458 2/81 2/87 2/93
Locarno class: 24/58

[Classification Explorer](#)

Cited documents: WO9938398 A1, US6038700 A, US5996122 A, US5983409 A, US5965223 A, US5928971 A, US5924134 A, US5920905 A, US5860163 A, US5858888 A, US5787503 A, US5727401 A, US5724673 A, US5685015 A, US5640718 A, US5468537 A, US5447787 A, US5399418 A, US5236769 A, US5189737 A, US5150476 A, US5136723 A, US5098770 A, US5043209 A, US4922552 A, US4897886 A, US4696066 A, US4583247 A, US4502153 A, US4188445 A, US3925823 A,

Forward Citations: WO14051936, WO07021459, WO07021459, WO07014056, WO06014855, WO06014855, USD746515, USD743105, USD581136, USD580633, US9994978, US9938645, US9526926, US9415246, US9409378, US9386816, US9259599, US9038203, US8898821, US8719969, US8701218, US8650668, US8516615, US8347420, US8327469, US8151371, US7854017, US7816289, US7676855, US7168103, US7111327, US7111327, US6983490, US2013174334, US2013074250, US2013031703, US2009320176, US2009255038, US2009249531, US2009188017, US2008263744, US2008163404, US2008107886, US2007137012, US2006260020, US2006191054, US2006038140, US2006019566, US2005251900, US2005144694, US2005076422, US2004266297, US2004261857, US2004253891, US2004203310, US2004092187, GB2451414, EP2900097, EP2900097, EP2900097, EP2186428, EP2186428, EP2186428, EP1939339, EP1939339, EP1593314, AU2004322482,

Abstract:

A protective garment, such as a firefighting garment, that is relatively thin and light weight. The garment possesses relatively high resistance to liquid water absorption, yet also possesses relatively high moisture vapor transport characteristics when compared to conventional firefighting garments. The garment of the present invention includes an outer shell; a thermal liner positioned within the outer shell; a moisture barrier positioned within the thermal liner and a face cloth positioned within the moisture barrier. The thermal liner is batting, knit, spunlace, woven textile or other suitable construction of a high heat and flame resistant material (such as an aramid or PBI material, or combinations thereof) that is treated with a durable, water repellant finish to minimize liquid moisture absorption by the thermal liner. Despite the liquid moisture absorption resistance imparted onto the thermal liner by the finish, the thermal liner still retains excellent moisture vapor transport characteristics. By positioning the treated thermal liner between the outer shell and the moisture barrier, the moisture barrier is protected from damage due to excessive thermal heat from the ambient and from abrasion and wear caused by the outer shell. Additionally, by orienting the moisture barrier within the thermal barrier, the TPP (thermal protection property) of the garment is substantially increased. This allows for the reduction in the overall thickness and weight of the thermal liner throughout the garment.



22) Family number: 14420791 (US6248418B)

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Title:	POLYESTER PRODUCT AND PROCESS FOR PRODUCING THE SAME			
Priority:	FR19940002622 19940304	DE19944409040 19940317	EP19940301920 19940317	
	US19940210002 19940317	US19950370415 19950109	JP19950009166 19950124	
	JP19950029161 19950217	JP19950083966 19950410	JP19950112126 19950510	
	JP19950260174 19951006	WO1996JP00120 19960124	JP19960027957 19960215	
	JP19960082574 19960404	JP19960113623 19960508	JP19970173619 19970630	

Family:	Publication number	Publication date	Application number	Application date
	CN1077019 C	20020102	CN19961090060	19960124
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	EP0753395 A1	19970115	EP19960901101	19960124
	EP0753395 A4	19980422	EP19960901101	19960124
	EP0753395 B1	20030521	EP19960901101	19960124
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	JP3079931 B2	20000821	JP19950009166	19950124

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WO9622876 A1	19960801	WO1996JP00120	19960124

Probable Assignee: TORAY IND INC A OF JAPAN CORP

Assignee(s):(std): AIR TONY CO LTD ; MAEDA YUKIHIRO ; OKAMOTO MIYOSHI ; TAGUCHI SETSUO ; TORAY IND ; TORAY INDUSTRIES

Assignee(s): TORAY INDUSTRIES INC ; TORAY KK ; TORAY IND INC A OF JAPAN CORP ; TORAY IND INC

Inventor(s):(std): MAEDA YUKIHIRO ; TAGUCHI SETSUO ; YUKIHIRO MAEDA ; SETSUO TAGUCHI ; SETSU TAGUCHI ; OKAMOTO MIYOSHI ; OKAMOTO MITSUYOSHI ; OKAMOTO KAZUYOSHI ; MIYOSHI OKAMOTO

Inventor(s): TAGUCHI SETSU

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

International class (IPC 8-9): A41B1/14 A41B17/00 A41B3/06 A41B3/10 A41D27/06 A41D27/26 A41D31/00 A42B1/00 B29C71/02 B60R21/16 C08G63/66 C08J5/18 C08J7/00 C08L67/00 D01D5/08 D01D7/00 D01F6/62 D01F6/84 D01F6/86 D01F8/14 D02G1/00 D02G3/02 D02G3/04 D03D1/00 D03D15/00 D04C1/02 D06C7/00 D06C7/02 (Advanced/Invention); B29C71/00 B29D99/00 C08L67/00 D01F6/62 (Advanced/Non-invention); A41B1/00 A41B17/00 A41B3/00 A41D27/00 A41D27/26 A41D31/00 A42B1/00 B29C71/02 B60R21/16 C08G63/00 C08J5/18 C08J7/00 C08L67/00 D01D7/00 D01F6/62 D01F6/78 D01F6/84 D01F8/14 D02G1/00 D02G3/02 D02G3/04 D03D15/00 D04C1/00 D06C7/00 (Core/Invention); C08L67/00 (Core/Non-invention)

International class (IPC 1-7): A41B1/00 A41B1/14 A41B17/00 A41B3/06 A41D27/06 A41D27/26 A42B1/00 B29C71/00 B29D31/00 B29K67/00 B29L31/00 B29L7/00 D01F6/62 D02G1/00 D06C7/00

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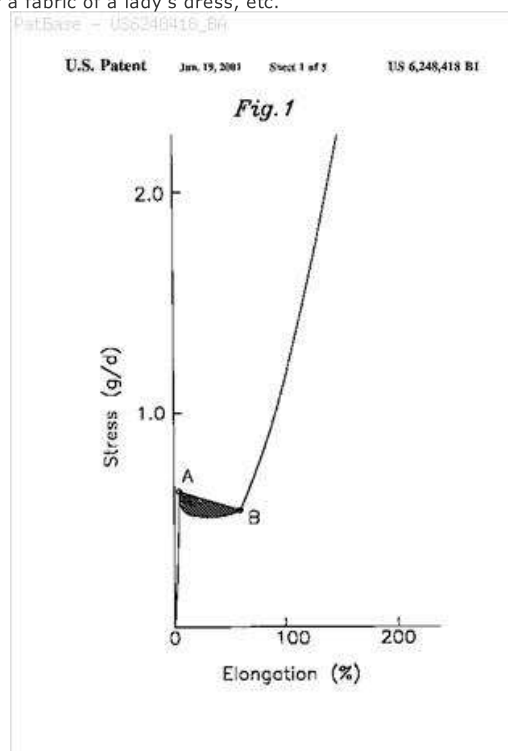
[Classification Explorer](#)

Cited documents: WO9428047 A1, US3091510 A, US2952879 A, JP62149912 A2, JP62149912, JP62090315 A2, JP62090315, JP62049378 A2, JP6146111 A2, JP6116811 A2, JP60231814 A2, JP60231814, JP53052722 A2, JP5263315 A2, JP52005319 A2, JP52005319, JP51105476 A2, JP51105476, JP48011432 A2,

Forward Citations: WO09000128, WO0146507, US9783998, US9376824, US7014914, US7004361, US6623681, US6548431, US6499142, US2016273234, US2011111673, US2008196144, US2008139064, US2007298680, US2006073331, US2005153609, US2004016778, US2003041425, TWI598185, KR101025599, KR100817404, KR100729957, JP4723346, JP4056583, JP3996876, JP3799443, JP2015038302, JP2008071714, JP2007119938, JP2004137455, JP10226937, JP10130923, EP0984085, EP0984085, EP0962157, CN104711743, CN104499147, CN103649393, CN102485074, CN102485074,

Abstract:

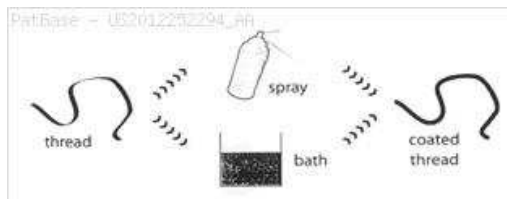
The present invention relates to a polyester product excellent in resilient elasticity, shape retainability and shape stability, and a process for producing the same. The invention provides a polyester product with high resilient elasticity, shape retainability, and shape stability, which is produced by heat-treating a product comprising polyester fibers or a film prepared by taking up a molten polyester at a take-up speed of 2000 m/min to 4000 m/min, in wet heat and/or dry heat at not lower than 120 degrees centigrade with the product maintained in a loose or constrained condition without being drawn. The product is very suitable, for example, as a collar interlining cloth of a shirt, a base fabric of a shirt, or a fabric of a lady's dress, etc.



Title:	SILK PROTEIN COATINGS																																																			
Priority:	EP20090015193 20091208		US20090267596P 20091208		EP20100793159 20101207		20101207																																													
	US20100514265 20101207		JP20120542392T 20101207		WO2010EP07440 20101207		20101207																																													
	US20120514265 20120606		US20150958775 20151203		JP20170034204 20170225																																															
Family:	<table><thead><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr></thead><tbody><tr><td>EP2509994 A2</td><td>20121017</td><td>EP20100793159</td><td>20101207</td></tr><tr><td>EP2509994 B1</td><td>20180926</td><td>EP20100793159</td><td>20101207</td></tr><tr><td>JP2013512773 T2</td><td>20130418</td><td>JP20120542392T</td><td>20101207</td></tr><tr><td>JP2017148797 A2</td><td>20170831</td><td>JP20170034204</td><td>20170225</td></tr><tr><td>JP6313541 B2</td><td>20180418</td><td>JP20120542392T</td><td>20101207</td></tr><tr><td>US2012252294 AA</td><td>20121004</td><td>US20100514265</td><td>20101207</td></tr><tr><td>US2016280960 AA</td><td>20160929</td><td>US20150958775</td><td>20151203</td></tr><tr><td>US9217017 BB</td><td>20151222</td><td>US20100514265</td><td>20101207</td></tr><tr><td>WO11069643 A2</td><td>20110616</td><td>WO2010EP07440</td><td>20101207</td></tr><tr><td>WO11069643 A3</td><td>20110811</td><td>WO2010EP07440</td><td>20101207</td></tr></tbody></table>								Publication number	Publication date	Application number	Application date	EP2509994 A2	20121017	EP20100793159	20101207	EP2509994 B1	20180926	EP20100793159	20101207	JP2013512773 T2	20130418	JP20120542392T	20101207	JP2017148797 A2	20170831	JP20170034204	20170225	JP6313541 B2	20180418	JP20120542392T	20101207	US2012252294 AA	20121004	US20100514265	20101207	US2016280960 AA	20160929	US20150958775	20151203	US9217017 BB	20151222	US20100514265	20101207	WO11069643 A2	20110616	WO2010EP07440	20101207	WO11069643 A3	20110811	WO2010EP07440	20101207
Publication number	Publication date	Application number	Application date																																																	
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EP2509994 B1	20180926	EP20100793159	20101207																																																	
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JP6313541 B2	20180418	JP20120542392T	20101207																																																	
US2012252294 AA	20121004	US20100514265	20101207																																																	
US2016280960 AA	20160929	US20150958775	20151203																																																	
US9217017 BB	20151222	US20100514265	20101207																																																	
WO11069643 A2	20110616	WO2010EP07440	20101207																																																	
WO11069643 A3	20110811	WO2010EP07440	20101207																																																	
Probable Assignee:	AMSILK GMBH																																																			
Assignee(s):(std):	AMSILK GMBH ; LEIMER AXEL ; LEIMER AXEL H ; ROEMER LIN ; ROMER LIN																																																			
Inventor(s):(std):	LEIMER AXEL ; ROEMER LIN ; ROMER LIN ; LEIMER AXEL H ; AXEL LEIMER ; LIN ROEMER																																																			
Agent(s):	ZWICKER JOERK; SHOJI TAKASHI; SUKENOBU YURIKO; KILPATRICK TOWNSEND AND STOCKTON LLP; VOSSIUS VOLKER 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 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																																																			
International class (IPC 8-9):	B05D7/24 B32B5/02 C03C17/28 C04B41/48 C07K14/435 C08J7/04 C09D189/00 C23C2/04 D02G3/36 D06M15/15 D06M23/10 (Advanced/Invention); C07K14/435 D06M101/00 D06M101/06 D06M101/12 D06M101/14 D06M101/32 D06M101/34 D06M101/36 D06M101/40 (Advanced/Non-invention)																																																			
CPC:	C07K2319/00 C07K2319/60 D06M15/15 D06M23/10 Y10T428/2933 Y10T442/20 C09D189/00 C03C17/28 C04B41/4807 C08J7/04 C23C2/04 C08J2367/03 C08J2377/00 C08J2327/18 C08J2323/12 C08J2323/06 C08J2489/00 C07K14/43518																																																			
European class:	C07K14/435A2A D06M15/15 D06M23/10 M07K319/00 M07K319/60																																																			
US class:	1/1 106/124.1 106/2 427/331 427/414 428/375 442/59 530/353																																																			
Classification Explorer																																																				
Cited documents:	WO11069643 A2, WO08155304 A1, WO08155304, WO08083908 A1, WO08083908 A1, WO07128378 A1, WO07128378 A1, WO07031301 A2, WO07031301, WO07025719 A1, WO07025719, WO06008163 A2, WO06008163 A2, WO06002827 A1, WO06002827, WO05120622 A2, WO03057727 A1, WO03057727, US7060260 BB, US59019604 P, US5695777 A, US2014113144 AA, US2009123967 AA, US2004132978 AA, US2004102614 AA, JP3123561 B4, JP3123561 A2, JP2009535242 T2, JP2009535242, JP2009505668 T2, JP2009505668, JP2008506409 T2, JP2008506409, JP2008501408 T2, JP2008501408,																																																			
Forward Citations:	WO17220383, WO17064066, WO16090055, WO15061079, US9217017, US2014234473, US2013036907, US10072152, JP2015532690, FR3025431, EP3323307, DE102016222480, DE102014225582, CN105694701, CN104119722, CN102296452,																																																			

Abstract:

The present invention relates to a method for coating an inert or naturally occurring material with a silk polypeptide. It further relates to a coated inert or naturally occurring material obtainable by said method and to uses thereof. It also relates to products comprising said coated material.



Title:	Shoes for a game port - module - Thabo (Machine translation)			
Priority:	JP19990910399U 19991130			
Family:	Publication number	Publication date	Application number	Application date
	JP3069347 U	20000616	JP19990009103U	19991130
International class (IPC 1-7):	A43B13/12 A43B23/02 A43B5/00 A63B71/08			
Abstract:	Source: JP3069347U			

Machine translation: [summary] If ?? players of the game when racing boat motor boat running at high speed, such as a motorboat [challenge] is to protect the foot of the player and more robust than the conventional motor boat racing shoes shoes for the competition to provide a motor boat can be. With mounting the bottom plate 2 in 1 bottom plate such as rubber [means to claim, by laminating a 23 textile high-strength fiber such as aramid fiber of multiple layers through 21 cushioning material, the 22 reinforcing plate made of metal, Attach the three legs wrapped member 38 is laminated on the outside of the fabric water-repellent fabric made of high-strength fiber such as aramid fibers and metal wire that incorporates multiple layers of aramid fiber 33, the tightening member (3) an appropriate envelope ??that the mounting member.



25) Family number: 30150893 (US5275625A)

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Title: SURFACE TREATED ARAMID FIBERS AND A PROCESS FOR MAKING THEM

Priority: DE19914106748 19910301 DE19914106748 19910302 DE19926031379 19920302
WO1992US01892 19920302 WO1992US01892 19920302 US19920844270 19920302
DE19926031379 19920302 CN19921003121 19920403 US19930079652 19930623
US19950392714 19950221

Family:	Publication number	Publication date	Application number	Application date
	AT195774 E	20000915	AT19920907786T	19920302
	AU199214656 A1	19921006	AU19920014656	19920302
	AU657123 B2	19950302	AU19920014656	19920302
	BRPI9205705 A	19940517	BR1992PI05705	19920302
	CA2105091 AA	19930827	CA19922105091	19920302
	CA2105091 C	20021029	CA19922105091	19920302
	CN1044019 C	19990707	CN19921003121	19920403
	CN1076976 A	19931006	CN19921003121	19920403
	DE69231379 D1	20000928	DE19926031379	19920302
	DE69231379 T2	20010301	DE19926031379T	19920302
	EP0575476 A1	19931229	EP19920907786	19920302
	EP0575476 B1	20000823	EP19920907786	19920302
	ES2152227 T3	20010201	ES19920907786T	19920302
	JP3036075 B2	20000424	JP19920507450T	19920302
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	KR19937003505 A	19931130	KR19937002621	19920302
	TW201801 B	19930311	TW19920102510	19920331
	US5275625 A	19940104	US19920844270	19920302
	US5443896 A	19950822	US19930079652	19930623
	US5520705 A	19960528	US19950392714	19950221
	WO9215746 A1	19920917	WO1992US01892	19920302

Probable Assignee: STEPHENSON GROUP LTD

Assignee(s):(std): DU PONT ; DUPONT CO ; STEPHENSON GROUP ; STEPHENSON GROUP LTD

Assignee(s): STEPHENSON GROUP LTD BRADFORD ; REBOUILLAT SERGE ; EI DU PONT DE NEMOURS AND CO INC ; EI DU PONT DE NEMOURS AND CO ; EIDU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND CO INC ; E I DU PONT DE NEMOURS AND CO WILMINGTON ; E I DU PONT DE NEMOURS AND COMPANYUS ; EI DU PONT DE NEMOUR AND CO ; EI DU PONT DE NEMOUR AND CO A CORP OF DE

Inventor(s):(std): REBOUILLAT SERGE ; REBOUILLAT SERGE DR ; SERGE REBOUILLAT ; S REBOUILLAT ; DR SERGE REBOUILLAT

Agent(s): CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; DIMOCK STRATTON LLP

Designated states: AT AU BE BR CA CH DE DK ES FR GB GR IT JP KR LI LU MC NL SE

International class (IPC 8-9): D06M13/02 D06M13/12 D06M13/13 D06M13/228 D06M13/248 D06M13/256 D06M15/11 D06M15/267 (Advanced/Invention); D06M101/00 D06M101/16 D06M101/30 D06M101/34 D06M101/36 (Advanced/Non-invention); D06M13/13 (Core/Non-invention)

International class (IPC 1-7): B32B7/00 D01F6/60 D01F6/80 D03D3/00 D06M101/36 D06M13/123 D06M13/13 D06M13/228 D06M15/05 D06M15/11 D06M15/267

CPC: Y10T428/2969 D06M15/11 D06M13/13 D06M13/228 Y10T442/2344 Y10T442/2902

European class: D06M13/13 D06M13/228 D06M15/11

US class: 428/224 428/225 428/245 428/260 428/265 428/267 428/289 428/290 428/395 442/101 442/169 8/115.57 8/115.61 8/115.62

[Classification Explorer](#)

Cited documents: US5443896 A, US5275625 A, US5188430 A, US5028236 A, US5017268 A, US4670343 A, US4668234 A, US4619854 A, US4405408 A, US4350788 A, US4296012 A, US4123319 A, US4043863 A, US3957574 A, US3869429 A, US3287324 A, US3223543 A, JP62243628 A2, JP62243620 A2, JP62097967 A2, JP60258245 A2, JP60258244 A2, JP57101094 A2, JP57010194 A2, JP50053608 A2, GB2221928 A1,

EP0354397 A2, EP0332919 A2, EP0261820 A1, EP0239915 A2, EP0231927 A2, EP0163403 A2, EP0136727 A1, EP0107887 A1, EP0037892 A1,

Forward Citations: WO13101308, WO13085581, WO13072310, US5520705, US5443896, US2013040524, US2013029151, US2008319545, US2003092804, EP2753748, EP1133774, EP0695622, CN106758193, CN106758193,

Abstract:

The invention relates to highly processable, hydrophobic aramid fibers of high modulus, improved surface frictional properties, scourability, low abrasion depositing, low fibrillation obtainable by surface reaction of an aromatic polyamide fiber with a surface reactant comprising a ketene dimer (R¹R²C₂O)(R¹R²C₂O)(I). The invention further relates to a process for the production and the use of said fibers.



26) Family number: 46662913 (US2011293892A)

© PatBase

Title: HEAT-INSULATING AND SOUND ABSORBING MATERIAL FOR THE HEAT-INSULATING AND SOUND ABSORBING STRUCTURE OF A CAR BODY

Priority: EP20090833895 20091222 WO2009JP07146 20091222

Family:	Publication number	Publication date	Application number	Application date
	AU2009324273 AA	20110707	AU20090324273	20091222
	AU2009324273 BB	20150521	AU20090324273	20091222
	CA2707220 AA	20100630	CA20092707220	20091222
	CA2707220 C	20130618	CA20092707220	20091222
	CN102164777 A	20110824	CN200980106192	20091222
	CN102164777 B	20160120	CN200980106192	20091222
	DE602009044153 D1	20170323	DE200960044153T	20091222
	EP2363325 A1	20110907	EP20090833895	20091222
	EP2363325 A4	20120829	EP20090833895	20091222
	EP2363325 B1	20170208	EP20090833895	20091222
	JP2011077482 A1	20130502	JP20100513543T	20091222
	JP4521065 B1	20100811	JP20100513543T	20091222
	KR20120101184 A	20120913	KR20107015601	20091222
	TH114713 A	20120629	TH20101000080	20100118
	US2011293892 AA	20111201	US20090812664	20091222
	WO11077482 A1	20110630	WO2009JP07146	20091222

Probable Assignee: NAGOYA OILCHEMICAL CO LTD

Assignee(s):(std): FUJI MAKOTO ; FUJII MAKOTO ; NAGOYA OILCHEMICAL ; OGAWA MASANORI

Assignee(s): NAGOYA OILCHEMICAL CO LTD ; NAGOYA OILCHEMICAL CO LTD TOKAI ; NAGOYA OILCHEMICAL CO

Inventor(s):(std): FUJI MAKOTO ; MASANORI OGAWA ; MAKOTO FUJII ; OGAWA MASANORI ; FUJII MAKOTO

Inventor(s): FUJII MAKOTO TOKAI SHI ; OGAWA MASANORI TOKAI SHI

Agent(s): SPRUSON AND FERGUSON; KIRBY EADES GALE BAKER; VOSSIUS AND PARTNER PATENTANWALTE RECHTSANWALTE MBB; VOSSIUS AND PARTNER; USAMI TADAO

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 MX MY NZ 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

International class (IPC 8-9): B32B29/00 B32B29/02 B32B3/00 B32B5/00 B32B5/24 B32B5/26 B60R13/08 B60R99/00 B62D39/00 D21H27/40 F16L59/02 F16L59/05 G10K11/16 G10K11/162 G10K11/168 (Advanced/Invention); B32B5/22 B60R13/08 D21H27/30 G10K11/00 (Core/Invention)

International class (IPC 1-7): B32B5/26 B60R13/08

CPC: Y10T428/24612 G10K11/168 B32B5/26 B60R13/08 D21H27/40 B32B5/022 B32B5/18 B32B7/12 B32B29/02 B32B29/06 B32B2260/021 B32B2260/046 B32B2262/0238 B32B2262/0246 B32B2262/0253 B32B2262/0261 B32B2262/0276 B32B2262/0292 B32B2262/065 B32B2262/10 B32B2262/101 B32B2262/105 B32B2262/106 B32B2266/0228 B32B2266/025 B32B2266/0278 B32B2266/0285 B32B2307/102 B32B2307/304 B32B2307/546 B32B2307/718 B32B2307/7242 B32B2307/732 B32B2605/08

European class: B32B5/26 B60R13/08 D21H27/40 G10K11/168

US class: 428/172 428/172P

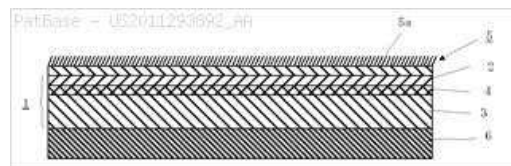
[Classification Explorer](#)

Cited documents: WO08057390 A2, US4609433 A, US2010310893 AA, US2008176968 AA, US2008121461 AA, US2003143367 AA, JP7152384 A2, JP7152384, JP2009214871 A2, JP2009214871, JP2006069256 A2, JP2000516175 T2, JP2000516175, JP2000085085 A2, JP2000085085, JP10254452 A2, JP10254452, CN101594986,

Forward Citations: WO16179339, WO16066565, WO14141418, US9855902, US9415729, US9415728, US8534738, US2016059799, US2013341120, US2012169083, KR101803777, JP2014141418, EP3416160, EP3212468, DE102015207335, CN105993103, CN105993103, CN103507349, CN103043065, CN103043065,

Abstract:

[SUBJECT] The subject of the present invention is to provide a heat-insulating structure for a car, the heat-insulating structure having a light weight, and excellent heat-insulating and sound absorbing performance. [METHOD FOR SOLVING THE SUBJECT] A heat-insulating and sound absorbing material is provided in the invention. The heat-insulating and sound absorbing material is characterized by an air-flow resistance controlling layer which lies between an air-permeable rigid layer and an air-permeable resilient layer, wherein the air-flow resistance controlling layer is a pulp fiber layer or a laminated layer of a pulp fiber layer and a nonwoven fabric having a mass per unit area in the range of between 10 and 50 grams per square metre, a thickness in the range of between 0.08 and 0.30 mm, and an air-flow resistance in the range of between 0.07 and 3.00 kPa·s/m.



27) Family number: 2002953 (DE3034547A1)

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Title: BULLETPROOF ANORAK - WITH TEXTILE OUTSIDE AND MULTILAYER ARAMID FIBRE TISSUE INSIDE

Priority: DE19803034547 19800912

Family:

Publication number	Publication date	Application number	Application date
DE3034547 A1	19820325	DE19803034547	19800912
DE3034547 C2	19880107	DE19803034547	19800912
ES505401 A0	19831101	ES19810505401	19810911
ES8400664 A1	19831101	ES19810505401	19810911

Probable Assignee: MEHLER V AG

Assignee(s):(std): MEHLER AG V ; MEHLER V AG ; VAL MEHLER AG

Assignee(s): VAL MEHLER AG 6400 FULDA DE ; VALMEHLER AG

Inventor(s):(std): BANIK NASS GEB BANIK ; LUETSCH MICHAEL ING GRAD ; NEIDHARDT HELMUT DIPL CHEM DR

Inventor(s): NEIDHARDT HELMUT DIPL CHEM DR 6400 FULDA DE ; NEIDHARDT HELMUT DIPL CHEM DR ; LUETSCH MICHAEL ING GRAD 6415 PETERSBERG DE ; BANIK NASS GEB BANIK KAROLA ING GRAD 6412 GERSF ; BANIK NASS GEB BANIK KAROLA ING GRAD 6412... ; LUETSCH MICHAEL ING ; BANIK KAROLA ING BANIK NASS GEB

International class (IPC 8-9): A41D13/015 A41D13/05 A41D31/00 F41H1/02 (Advanced/Invention); A41D13/015 A41D13/05 A41D31/00 F41H1/00 (Core/Invention)

International class (IPC 1-7): A41D13/0 A41D13/00 F41H1/02

CPC: A41D13/015 A41D13/0518 A41D31/0061 F41H1/02

European class: A41D13/015 A41D13/05D A41D31/00C10L F41H1/02

[Classification Explorer](#)

Cited documents: US4183097 A, US3891996 A, DE7806139 U, DE7529537 U, DE7127694 U, DE2931110 A1, DE2820688 A1, DE2651238 A1, DE1935007 U,

Forward Citations: WO18114069, EP3132227, EP2158818, EP2158818, EP0809946, EP0809946, DE202017100965, DE202014103530, DE19810613, DE19810613, DE102017103584, DE102014110791,

Abstract:

Bulletproof anorak consists of a textile outside surface which is fitted with an integral or detachable lining of puncture-curbing material. This material consists of a multi-layer lining of aramide fibre tissue which is covered on the inside by a neutral fabric. If the bulletproof lining is detachable, it is joined to the outside of the anorak by a sliding clasp fastener. To provide safety against guns of category III, plates of armour plating or ceramics can be sewn into the aramide fibre lining. Pref. there is an elastic layer of plastics foils or foamed polymer on the near side of the aramide layers. This anorak can be worn by people during undercover shadowing operations of criminals and terrorists without risk of being spotted.

