

Search query (3): [SP]: field of the invention0001 the present invention relates to panels for use in building construction. in particular, the present invention relates to panels for providing partitions to which items such as sinks, televisions, or radiators may be affixed.background to the invention0002 light-weight panels such as plasterboard (e.g. gypsum plasterboard), polystyrene board and fibreboard are commonly used to provide partitions within buildings. their advantages for this application include the fact that they are light and quick to install.0003 however, in certain cases, such light-weight panels may have the drawback that they are not strong enough to support fixtures (e.g. sinks, televisions, radiators, fire extinguishers, shelves and any other item that requires attachment to the panel). in such cases, the weight of the fixture may cause the fixing means (e.g. screws) to be pulled out of the panel, such that the fixture falls away from the partition.0004 typically, this problem has been addressed by providing plywood sheets to increase the fixing strength of the panel. in this case, the plywood sheet is provided on the side of the panel opposite to that on which the fixture is to be located. the plywood sheet may provide increased strength for retaining one or more fixing means (e.g. screws) employed to secure the fixture to the panel. typically, the plywood sheet is positioned within the partition framework, and the plasterboard then fixed to the plywood, so that it lies outside the partition framework.0005 as an alternative, metal support means may be provided. these may comprise fixing plates, channels, straps, or metal fasteners. as is the case for plywood sheets, the metal support means are generally positioned on the side of the panel opposite that to which the fixture is to be secured, and act to receive and secure fixing means, e.g. fixing screws, that are used to attach the fixture to the panel.0006 both these arrangements have the disadvantage that they require the panels and the additional supporting components to be affixed to each other on-site. moreover, when metal support means are used, a plurality of such support means may be needed to support the full set of fixing means required to secure the fixture to the panel. thus, the installation process may be time-consuming and expensive.0007 furthermore, the addition of metal support means or plywood sheets increases the weight and thickness of the partition, and/or results in a reduction in cavity wall space. in general, the plywood itself must be cut to size on site, thus increasing the time required for installation and possibly leading to the release of dust and potentially harmful components.0008 therefore, there is a need to provide improved panels that are able to retain fixing means and support fixtures, and that do not require time-consuming installation processes.summary of the invention0009 investigations have been carried out into the use of polymeric additives to strengthen gypsum products. surprisingly, it has been found that by using a combination of starch and a synthetic polymer, certain advantages in the manufacture and performance of gypsum products may be achieved.0010 therefore, in a first aspect, the present invention may provide a gypsum product comprising a first polymeric additive and a second polymeric additive distributed therein, wherein the first polymeric additive is a synthetic polymer and the second polymeric additive is starch.0011 it has been found that the combination of starch and a synthetic polymer may result in one or more of the following advantages in the manufacture and performance of gypsum products: increased strengthgreater ease of manufacturing due to the increased fluidity of stucco slurries containing both additives andincreased resistance to hygroscopic expansion.0015 typically, the first polymeric additive is present in an amount equal to or greater than the second polymeric additive. however, in certain cases, the first polymeric additive may be present in an amount that is less than 40 percent of the total amount of the first and second additives, possibly less than 30 percent.0016 in general, the total amount of the first and second polymeric additives is greater than 3 wt percent relative to the gypsum, preferably greater than 4 wt percent. typically, the total amount of the first and second polymeric additives is less than 15 wt percent relative to the gypsum, preferably less than 13 wt percent.0017 preferably, the starch is present in an amount of 1.0 percent or more, relative to the weight of the gypsum product, preferably 1.25 wt percent or more, more preferably 2.0 wt percent or more.0018 preferably, the first polymeric additive is polyvinyl acetate.0019 the starch may be derived from wheat, potato, tapioca, or corn, for example. preferably, the starch is derived from corn. in certain embodiments, the starch is a native starch (that is, an unmodified starch). in other embodiments, the starch may be a modified starch, for example, an acid-thinned starch.0020 in certain embodiments, the starch is a substituted starch, such as described in u.s. pat. no. 7,048,794, which is hereby incorporated by reference. substituted starches are starch derivatives that have been chemically reacted to replace one or more of the hydroxyl functional groups. typically, the process involves etherification or esterification of a starch or modified starch which appends ether or ester linkages along the starch polymer backbone. this process is distinct from other modifications typically made to starches such as oxidization, acid-thinning, cross-linking, and pre-gelatinisation, although such processes may also be applied to the starch, prior to or after substitution with one or more types of functionalities.0021 it is thought that substituted starches act as efficient binders for the inorganic phase of plasterboards, e.g. gypsum, thus increasing the core strength of the plasterboard. preferably, the starch is insoluble in cold water, but dissolves at a higher processing temperature during forming, setting, or drying of the plasterboard. this is thought to limit excessive migration of the starch, so that it remains in the plasterboard core, to provide a binder for the gypsum crystals.0022 the substituted starch may comprise hydroxyethylated, hydroxypropylated, and/or acetylated starch. preferably, the starch is a hydroxyethylated starch.0023 the starch may be a migratory starch or a non-migratory starch. non-migratory starches are starches that are retained within the core of the plasterboard and do not migrate to the board surface. by contrast, migratory starches typically migrate to the surface of the plasterboard and serve the purpose of improving the bonding of the plasterboard core to the paper facing (if used).0024 an example of a non-migratory starch that may be used in the present invention is dextrin.0025 preferably, in the case that the starch is present at a level of at least 3 wt percent relative to the gypsum, the starch is a migratory starch. surprisingly, it has been found that at these relatively high starch contents, even a migratory starch will be retained within the plasterboard core in sufficient amounts so as to enhance the fixing strength of the plasterboard. at the same time, the migratory starch may aid in improving the bonding of the plasterboard core to a paper facing (if used), so that there is no need to include multiple starch varieties within the plasterboard.0026 in the case that the starch is present at a level of at least 3 wt percent relative to the gypsum, it is generally preferred that the starch is a native starch, rather than a pre-gelatinised starch. at these relatively high starch levels, pre-gelatinised starch is considered to impart excessive viscosity to the gypsum slurry.0027 in other cases, the starch may be a pre-gelatinised starch.0028 in certain embodiments, the starch may be selected to have a low viscosity (e.g. a brookfield viscosity of less than 60 cps) at a temperature of less than 60 degrees centigrade, and a much higher viscosity (e.g. a brookfield viscosity of over 10000 cps) at a temperature of 70 degrees centigrade such starches are described in e.g. u.s. pat. no. 8,252,110, which is hereby incorporated by reference. these starches have a rheology that is strongly temperature-dependent: it is thought that, at low temperatures, the starch may be dispersed in the core in order to penetrate into the inter-crystalline spaces. as soon as the temperature is above 60 degrees centigrade, the viscosity of the starch increases rapidly up to a very high level to ensure that the starch actually remains in the core and does not migrate to the core/facing interface.0029 in certain cases, the starch may be incorporated into the gypsum product by adding flour (for example, wheat flour) to the stucco slurry.0030 preferably, the gypsum product includes fibres embedded therein. typically, the fibres are present in an amount greater than 2 wt percent relative to the gypsum, preferably greater than 3 wt percent. typically, the fibres are present in an amount less than 10 wt percent relative to the gypsum preferably less than 7 wt percent. in general, the fibres are glass fibres.0031 preferably, the gypsum product is substantially free of boron. boron additives are considered to represent a risk to health and safety during manufacture of the gypsum product.0032 in certain embodiments, the gypsum product is a plasterboard. in general, the plasterboard has paper facings. these paper facings may comprise both cellulose fibres and gla

Results: 6

Search history

Search PN=(WO/2016/079530) (Results 1)

1:

Search [SP]: 1. a gypsum panel comprising a first polymeric additive and a second polymeric additive distributed therein, wherein the first polymeric additive is a synthetic polymer and the second polymeric additive is starch the gypsum panel having fibres embedded therein in an amount of 2-10 wt percent relative to gypsum in the gypsum panelwherein the total amount of the first and second polymeric additives is greater than 4 wt percent relative to the gypsum. 2. a gypsum product according to claim 1, wherein the first polymeric additive is present in an amount equal to or greater than the second polymeric additive. 3. a gypsum product according to claim 1, wherein the total amount of the first and second polymeric additives is 20 wt percent or less relative to the gypsum. 4. a gypsum product according to claim 1, wherein the first polymeric additive is polyvinyl acetate. 5. a gypsum product according to claim 1, wherein the second polymeric additive is substituted starch. 6. a gypsum product according to claim 5, wherein the starch is ethylated starch. 7. (canceled) 8. a gypsum product according to claim 1, wherein the fibres are glass fibres. 9. a gypsum product according to claim 8, wherein the fibres are present in an amount of 3-10 wt percent relative to the gypsum. (Results 0)

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affixed to each other on-site. moreover, when metal support means are used, a plurality of such support means may be needed to support the full set of fixing means required to secure the fixture to the panel. thus, the installation process may be time-consuming and expensive.0007 furthermore, the addition of metal support means or plywood sheets increases the weight and thickness of the partition, and/or results in a reduction in cavity wall space. in general, the plywood itself must be cut to size on site, thus increasing the time required for installation and possibly leading to the release of dust and potentially harmful components.0008 therefore, there is a need to provide improved panels that are able to retain fixing means and support fixtures, and that do not require time-consuming installation processes.summary of the invention0009 investigations have been carried out into the use of polymeric additives to strengthen gypsum products. surprisingly, it has been found that by 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higher processing temperature during forming, setting, or drying of the plasterboard. this is thought to limit excessive migration of the starch, so that it remains in the plasterboard core, to provide a binder for the gypsum crystals.0022 the substituted starch may comprise hydroxyethylated, hydroxypropylated, and/or acetylated starch. preferably, the starch is a hydroxyethylated starch.0023 the starch may be a migratory starch or a non-migratory starch. non-migratory starches are starches that are retained within the core of the plasterboard and do not migrate to the board surface. by contrast, migratory starches typically migrate to the surface of the plasterboard and serve the purpose of improving the bonding of the plasterboard core to the paper facing (if used).0024 an example of a non-migratory starch that may be used in the present invention is dextrin.0025 preferably, in the case that the starch is present at a level of at least 3 wt percent relative to the gypsum, the starch 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1) Family number: 22070448 (US3297601A)

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Title: SUBSTANTIALLY DRY JOINT COMPOUND COMPRISING CALCIUM SULFATE, POLYVINYL ACETATE AND STARCH

Abstract: (Claim 1) 1. A substantially dry composition adapted for use in finishing joints between wallboards when mixed with water comprisin.- a mixture of calcium sulfate hemihydrate in an amount from about to 90% by weight, set control additives for said calcium sulfate hemihydrate, dry finely divided polyvinyl acetate, a dry plasticizer for said polyvinyl acetate.

Classifications:

International (IPC 8-9): C04B28/14 C08K3/30 C08L31/04 C09J103/02 (Advanced/Invention);
C08L3/02 (Advanced/Non-invention);
C04B28/00 C08K3/00 C08L31/00 C09J103/00 (Core/Invention);
C08L3/00 (Core/Non-invention)

International (IPC 1-7): C04B11/14 C08L31/04

CPC: C08L2666/02 C08L2666/54 C08L31/04 C04B28/146 C04B2103/12 C04B2103/22 C04B2103/30 C04B2111/00672
C08K3/30 C08L3/02 C09J103/02

European: C04B28/14H2 C08K3/30 C08L31/04 C09J103/02 M04B103/12 M04B103/22 M04B103/30 M04B111/00T10B
M08L3/02

US: 524/5 524/53

Family:

Publication number	Publication date	Application number	Application date
US3297601 A	19670110	US19630301897	19630813

Priority:

US19630301897 19630813

Probable Assignee: UNITED STATES GYPSUM CO

Assignee(s): (std): UNITED STATES GYPSUM CO

Assignee(s): UNITED STATES GYPSUM COMPANY

Inventor(s): (std): PTASIENSKI MITCHELL P ; EARL MAYNARD

Inventor(s): MAYNARD EARL

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US3297601 A	19670110	LSGT	+	granted / extensions (spc, cpc, pte)	
US3297601 A	19840110	PEXP		Calculated Patent Term Expiry	

2) Family number: 3107461 (SU1076422A)

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Title: RAW MIX FOR MAKING ORNAMENTAL AND ACOUSTIC MATERIAL

Abstract: Source: SU1076422A **Machine translation:** RAW S.MES FOR MANUFACTURING tives DECOR BUT GO-acoustic material type, comprising a mineral fiber, starch, gypsum, polvinilatsetatnuyu dispersion and foaming agent on tlichayuscha that, in order to reduce the bulk density while poviienni strength and reducing fuel Starch, further comprising steklopor and fiberglass in the following ratio, wt. percent: Mineral 28,0-36,0 Krahmal0,8-1, 7 Gips43,0-49, 0 polyvinyl acetate dispersion 1.5-2.5 0.3-0.4 Foam Steklopor12,0-23, 0 Fiberglass 0,4-1,4 S

Classifications:

International (IPC 8-9): C04B28/14 C04B38/10 (Advanced/Invention); C04B28/00 (Core/Invention)

International (IPC 1-7): C04B43/02

CPC: C04B28/14

European: C04B28/14

Family:

Publication number	Publication date	Application number	Application date
SU1076422 A1	19840228	SU19823477388	19820630

Priority:

SU19823477388 19820630

Probable Assignee: ALMA ATINSK ARKHITEKTUR

Assignee(s): (std): ALMA ATINSK ARKHITEKTUR ; ALMA ATINSKIY ARKHITEKTURNO ST

Assignee(s): ALMA ATINSKIY ARKHITEKTURNO STROITELNYJ INSTITUT

Inventor(s): (std): SAFINOV MURAT B ; SADUAKASOV MEDERBAJ S ; EREZHEPOV URAZBAJ S ; BAJBOLOV SEREKPEK M ; ASaubekov MAKARYM A

Inventor(s): SAFINOV MURAT B SU ; ASaubekov MAKARYM A SU ; BAJBOLOV SEREKPEK M SU ; EREZHEPOV URAZBAJ S SU ; SADUAKASOV MEDERBAJ S SU

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
SU1076422 A1	19840228	LSGT	+	granted / extensions (spc, cpc, pte)	

3) Family number: 28170922 (US2001001218A)

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Title: STRENGTHENED, LIGHT WEIGHT CONSTRUCTION BOARD AND METHOD AND APPARATUS FOR MAKING THE SAME

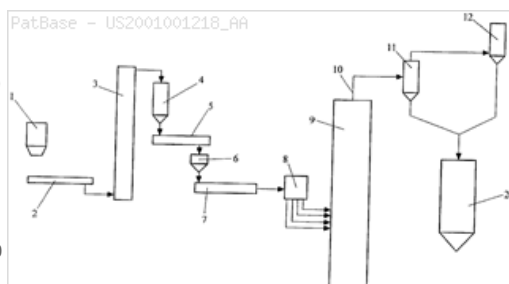
Abstract: A novel construction board composition is disclosed comprising a unique combination of synthetic binders selected for their ability to establish a strengthened permanent bond in the final dry state for use in a construction board composition comprising primarily gypsum, and in a construction board composition comprising an expanded mineral such as Perlite which largely reduces the amount of gypsum over current gypsum construction board formulations, thus reducing the weight while maintaining the strength of the construction board structure. In a preferred embodiment, the lightweight, strengthened gypsum construction board of the present invention also comprises an optional covering veneer that is applied to provide increased strength, moisture resistance, and fire retardency, and the back paper top ply is treated to provide increased flexural strength. Additionally, this invention relates to the unique manufacturing process to produce the improved gypsum construction board composition of the present invention in order to create a lightweight, strengthened, moisture resistant, and fire retardant construction board used to cover walls in construction applications. Still further, this invention relates to the apparatus for manufacturing the construction board composition of the present invention, including a method and apparatus for economically converting a standard gypsum construction board manufacturing facility into a facility for manufacturing the improved gypsum construction board of the present invention.

Classifications:

International (IPC 8-9): B28B11/24 B28B15/00 B28B19/00 B28B23/00 B29C39/14 B29C67/24 B32B13/00 B32B13/08 B32B29/00 C04B26/02 C04B26/04 C04B26/28 C04B28/14 C08K3/00 C08K3/30 C08K7/22 C08L101/12 C08L27/06 C08L3/02 C08L31/04 C08L75/04 E04B1/64 E04C2/04 (Advanced/Invention); C04B111/40 C04B14/12 C08K3/00 E04B1/64 E04C2/04 (Advanced/Non-invention); B28B11/00 B28B15/00 B28B19/00 B28B23/00 B29C39/00 B29C67/24 B32B13/00 B32B29/00 C04B26/00 C04B28/00 C08K3/00 C08K7/00 C08L75/00 E04C2/04 (Core/Invention)

International (IPC 1-7): A01J21/00 A01J25/12 A01J25/15 A21C11/00 A21C3/00 A21C3/02 A23G1/20 A23G1/22 A23G3/00 A23G3/12 A23G3/16 A23P1/00 B21C3/00 B23B19/00 B23B23/00 B23B3/10 B28B11/00 B28B13/00 B28B15/00 B28B19/00 B28B21/00 B28B23/00 B28B3/00 B28B5/00 B29C39/20 B29C55/00 B29C61/00 B29C63/00 B29C67/02 B29C67/24 B29C71/00 B29D7/00 B29D9/00 B32B13/00 B32B13/08 B32B17/08 B32B31/00 B32B31/06 B32B31/14 B32B31/30 B32B5/16 C04B11/00 C04B111/40 C04B12/04 C04B14/12 C04B16/04 C04B16/08 C04B24/24 C04B26/02 C04B26/28 C04B28/14 C04B28/26 C04B38/00 C04B38/08 C08J3/00 C08K11/00 C08K3/00 C08K3/20 C08K3/30 C08K3/34 C08K3/38 C08K7/24 C08L101/12 C08L13/02 C08L27/06 C08L3/02 C08L31/02 C08L31/04 C08L75/00 C08L75/04 C09D1/02 C09J1/02 D21H15/06 D21H5/00 E04B1/64 E04C2/04

CPC: Y10S106/02 C04B26/02 C04B2111/00612 B29C39/14 C04B26/04 C04B2111/28 Y10T428/249954 Y10T428/249956 Y10T428/249957 Y10T428/249958 Y10T428/249926 Y10T428/249968 B29C67/245 B32B29/00 C08K3/30 C08K7/22 C08K2003/3045 C08L75/04 Y10T428/31996 C04B26/28 B28B11/24 B28B15/00 B28B19/0092 B28B23/0087 C04B2111/0062 B32B2264/025 B32B2264/0292 E04C2/043 B32B2262/101 B32B2305/70 B32B2307/3065 B32B2607/00 B32B2607/02



B32B13/08 C04B28/14
European: B28B11/24 B28B15/00 B28B19/00K B28B23/00Z1 B29C39/14 B29C67/24C3 B32B13/08 B32B29/00 C04B26/02 C04B26/04 C04B26/28B C04B28/14 C08K3/30 C08K7/22 C08L75/04 E04C2/04C M04B111/00T6 M04B111/00T6B M04B111/28 M08K3/30D
US: 106/611 106/631 106/631S 106/672 106/675 106/677 106/680 106/698 106/778 106/779 106/783 106/DIG.2 156/346 156/346S 156/39 156/42 156/42S 156/43 156/43S 156/44 156/44S 156/45 156/45S 264/135 264/135S 264/261 264/261S 264/333 264/333S 264/42 264/42P 264/45.6 264/45.600S 425/308 425/308S 425/4 425/4.00C S 425/404 425/404S 425/449 425/449S 425/4C 428/292.7 428/305.5 428/305.500S 428/307.3 428/307.300S 428/307.7 428/307.700S 428/308.4 428/308.400S 428/312.4 428/449 428/537.7 428/703 524/423 524/442 524/444 524/445 524/448 524/449 524/5

Family:

Publication number	Publication date	Application number	Application date
AU200017324 A1	20000605	AU20000017324	19991118
AU200017324 A5	20000605	AU20000017324	19991118
AU200125961 A1	20010703	AU20010025961	20001222
AU200125961 A5	20010703	AU20010025961D	20001222
CA2349248 AA	20010501	CA19992349248	19991118
CN1337847 A	20020227	CN19998015719	19991118
EP1130958 A1	20010912	EP19990960436	19991118
EP1130958 A4	20040915	EP19990960436	19991118
JP2004517018 T2	20040610	JP20000581875T	19991118
KR20010105290 A	20011128	KR20017006266	19991118
US2001001218 AA	20010517	US20000732852	20001208
US2002017222 AA	20020214	US20010828994	20010409
US6251979 BA	20010626	US19990374589	19990813
US6319312 BA	20011120	US19990471448	19991223
US6340388 BA	20020122	US20000547615	20000412
US6391958 BA	20020521	US20000696894	20001026
US6403688 BA	20020611	US20000696895	20001026
WO0028809 A1	20000525	WO1999US27267	19991118
WO0145932 A1	20010628	WO2000US35176	20001222

Priority:

US19980195438 19981118	US19990129618P 19990617	US19990139618P 19990617
US19990374589 19990813	WO1999US27267 19991118	US19990471448 19991223
US20000547615 20000412	US20000696894 20001026	US20000696895 20001026
US20000732852 20001208	WO2000US35176 20001222	US20010828994 20010409

Probable Assignee: INNOVATIVE TECHNOLOGIES ENTERPRISES CORP

Assignee(s): (std): ADVANCED BUILDING MATERIALS CO ; ADVANCED CONSTRUCTION MATERIAL ; JOSEPH S LUONGO ; LUONGO JOSEPH S

Assignee(s): ADVANCED CONSTRUCTION MATERIALS CORP ; INNOVATIVE TECHNOLOGIES ENTERPRISES CORP

Inventor(s): (std): LUONGO JOSEPH S ; ADVANCED CONSTRUCTION MATERIAL

Inventor(s): ADVANCED CONSTRUCTION MATERIALS CORPORATION ; JOSEPH S LUONGO

Agent(s): RIDOUT AND MAYBEE LLP

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 CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN 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 NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU200017324 A1	20000605	LSPB	+	published / reissued	
AU200017324 A1	20010816	LSLE	-MK6	APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE	
AU200125961 A1	20010703	LSPB	+	published / reissued	
CA2349248 AA	20010501	LSPB	+	published / reissued	
CA2349248 AA	20051118	LSLE	-FZDE	DEAD	
CN1337847 A	20020227	LSPB	+	published / reissued	
CN1337847 A	20020227	LSPB	+C06	PUBLICATION	
CN1337847 A	20041208	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
EP1130958 A1	20010912	LSPB	+	published / reissued	
EP1130958 A1	20010912	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010516
EP1130958 A4	20040915	LSSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20040804
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7C

04B 26/02 A					
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7C 04B 28/14 B
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7C 04B 26/28 B
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7C 08K 7/24 B
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7B 29C 67/24 B
EP1130958 A4	20040915	LSRE	RIC1	CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : 7B 28B 23/00 B
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EP1130958 A4	20050525	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20050131
JP2004517018 T2	20040610	LSPB	+	published / reissued	
KR20010105290 A	20011128	LSPB	+	published / reissued	
US2001001218 AA	20010517	LSPB	+	published / reissued	
US2001001218 AA	20010130	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS CORPORATION, ARIZO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LUONGO, JOSEPH S.; REEL/FRAME:011488/0066 EFFECTIVE DATE : 20010118
US2001001218 AA	20030908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS CORPORATION, COLOR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED CONSTRUCTION MATERIALS CORPORATION; REEL/FRAME:014455/0147 EFFECTIVE DATE : 20030626
US2001001218 AA	20040305	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
US2001001218 AA	20040423	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INNOVATIVE TECHNOLOGIES ENTERPRISES CORPORATION, V OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED CONSTRUCTION MATERIALS CORPORATION; REEL/FRAME:015246/0760 EFFECTIVE DATE : 20030626
US2002017222 AA	20020214	LSPB	+	published / reissued	
US2002017222 AA	20030611	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS

					CORPORATION, COLOR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LUONGO, JOSEPH S.; REEL/FRAME:014154/0428 EFFECTIVE DATE : 20030605
US2002017222 AA	20030908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS CORPORATION, COLOR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED CONSTRUCTION MATERIALS CORPORATION; REEL/FRAME:014455/0147 EFFECTIVE DATE : 20030626
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US2002017222 AA	20040423	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : INNOVATIVE TECHNOLOGIES ENTERPRISES CORPORATION, V OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED CONSTRUCTION MATERIALS CORPORATION; REEL/FRAME:015246/0760 EFFECTIVE DATE : 20030626
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US6251979 BA	20081219	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6251979 BA	20130626	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6251979 BA	20130722	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6251979 BA	20130813	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20130626
US6251979 BA	20190813	PEXP		Calculated Patent Term Expiry	
US6319312 BA	20011120	LSGT	+	granted / extensions (spc, cpc, pte)	
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					CONSTRUCTION MATERIALS CORPORATION, ARIZO OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LUONGO, JOSEPH S.; REEL/FRAME:011488/0066 EFFECTIVE DATE : 20010118
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US6319312 BA	20051121	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6319312 BA	20051221	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6319312 BA	20060117	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20051120
US6319312 BA	20191223	PEXP		Calculated Patent Term Expiry	
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US6340388 BA	20030908	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS CORPORATION, COLOR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:ADVANCED CONSTRUCTION MATERIALS CORPORATION; REEL/FRAME:014455/0147 EFFECTIVE DATE : 20030626
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US6340388 BA	20060123	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US6340388 BA	20060222	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6340388 BA	20060321	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20060122
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US6391958 BA	20140616	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US6391958 BA	20140708	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20140521
US6391958 BA	20201026	PEXP		Calculated Patent Term Expiry	
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US6403688 BA	20030611	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : ADVANCED CONSTRUCTION MATERIALS CORPORATION, COLOR OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:LUONGO, JOSEPH S.; REEL/FRAME:014154/0428 EFFECTIVE DATE : 20030605
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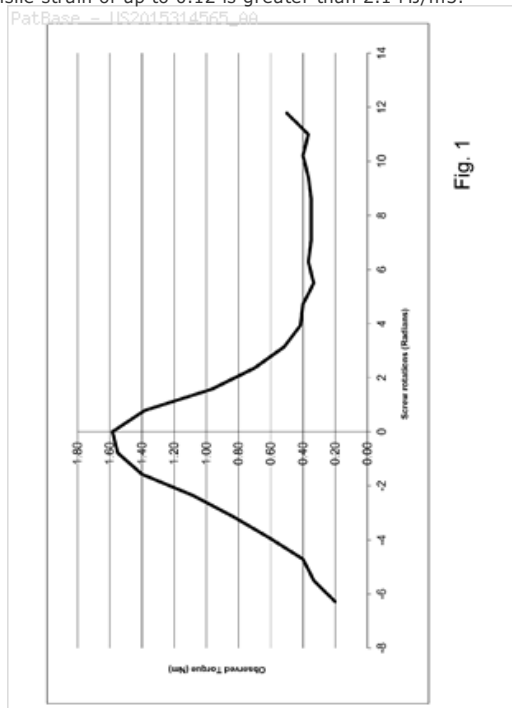
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US6403688 BA	20201026	PEXP		Calculated Patent Term Expiry	
WO0028809 A1	20000525	LSPB	+	published / reissued	
WO0028809 A1	20000309	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2000 17324 COUNTRY OF REF DOCUMENT : AU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
WO0028809 A1	20010501	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2349248 COUNTRY OF REF DOCUMENT : CA
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WO0028809 A1	20010510	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2000 581875 COUNTRY OF REF DOCUMENT : JP KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO0028809 A1	20010518	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020017006266 COUNTRY OF REF DOCUMENT : KR
WO0028809 A1	20010518	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2001/005039 COUNTRY OF REF DOCUMENT : MX
WO0028809 A1	20010912	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999960436 COUNTRY OF REF DOCUMENT : EP
WO0028809 A1	20011128	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020017006266 COUNTRY OF REF DOCUMENT : KR
WO0028809 A1	20041119	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020017006266 COUNTRY OF REF DOCUMENT : KR
WO0028809 A1	20050131	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999960436 COUNTRY OF REF DOCUMENT : EP
WO0145932 A1	20010628	LSPB	+	published / reissued	
WO0145932 A1	20031022	LSNE	-122	EP: PCT APPLICATION NON- ENTRY IN EUROPEAN PHASE	REF COUNTRY CODE : WO
WO0145932 A1	20040928	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : JP

Abstract: A panel for use in building construction comprises a plasterboard having two opposed faces, a polymer-based lamina being provided on one of these faces. The polymer-based lamina is characterised in that it is provided by a material for which the work done under uniaxial tensile stress to achieve a tensile strain of up to 0.12 is greater than 2.1 MJ/m³.

Classifications:

International (IPC 8-9): B32B B32B13/02 B32B13/12 B32B13/14
B32B19/00 B32B19/02 B32B21/00 B32B21/04 B32B21/08
B32B27/00 B32B27/02 B32B27/06 B32B27/12 B32B27/30
B32B27/32 B32B27/34 B32B27/36 B32B27/42 B32B5/00 B32B5/02
B32B5/10 B32B5/24 B32B5/28 B32B7/00 B32B7/02 B32B9/00
E04B1/86 E04B2/74 E04C2/04 E04C2/10
E04C2/26 (Advanced/Invention);
B32B19/00 B32B27/00 B32B5/00 B32B5/02 B32B7/00
B32B9/00 (Core/Invention);
B32B (Subclass/Invention)

CPC: B32B5/24 B32B5/28 B32B13/02 B32B19/02 B32B27/08
B32B27/306 B32B2260/046 B32B2307/558 B32B21/04 B32B21/08
B32B27/06 B32B2307/536 Y10T428/2495 Y10T442/60 B32B13/12
B32B5/022 B32B5/10 B32B7/02 B32B13/14 B32B27/12 B32B27/304
B32B27/32 B32B27/34 B32B27/365 B32B27/42 B32B2262/101
B32B2307/54 B32B2419/00 B32B2607/00
US: 428/213 428/703 442/327



Family:

Publication number	Publication date	Application number	Application date
AR096006 AA	20151202	AR2013P104653	20131212
AU2013357303 AA	20140619	AU20130357303	20131212
AU2013357303 BB	20170202	AU20130357303	20131212
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MA38266 B1	20171031	MA20130038266	20131212
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Priority:

EP20120290434 20121212 EP20130290132 20130611 WO2013EP76328 20131212
EP20130802683 20131212

Probable Assignee: SAINT GOBAIN PLACO SAS

Assignee(s): (std): SAINT GOBAIN PLACO ; SAINT GOBAIN PLACO SAS

Assignee(s): HOTCHIN GLEN ; JONES NICHOLAS

Inventor(s): (std): GLEN HOTCHIN ; HOTCHIN GLEN ; JONES NICHOLAS ; NICHOLAS JONES

Agent(s): HALFORDS IP; GOWLING LAFLEUR HENDERSON LLP; SILVA AND CIA PATENTES Y MARCAS LTDA;
PUGSLEY VICTORIA ANTONIETTA; CHAPMAN AND CO; HIROE AND ASSOCIATES PATENT
PROFESSIONAL CORP; PUGSLEY VICTORIA ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR
CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID
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Legal status (INPADOC)[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AR096006 AA	20151202	LSPB	+	published / reissued	
AU2013357303 AA	20140619	LSPB	+	published / reissued	
AU2013357303 AA	20170601	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2013357303 BB	20170202	LSGT	+	granted / extensions (spc, cpc, pte)	
AU2013357303 BB	20331212	PEXP		Calculated Patent Term Expiry	
CA2894745 AA	20150611	LSPB	+	published / reissued	
CL2015001662 A1	20151127	LSPB	+	published / reissued	
CN104955639 A	20150930	LSPB	+	published / reissued	
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EA201591119 A1	20151130	LSPB	+	published / reissued	
EP2743075 A1	20140618	LSPB	+	published / reissued	
EP2743075 A1	20140618	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20121212
EP2743075 A1	20141119	LSRV	-18R	REFUSED	EFFECTIVE DATE : 20140713
EP2743077 A1	20140618	LSPB	+	published / reissued	
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EP2743077 A1	20150708	LSDW	-18D	APPLICATION DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20141219
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EP2931514 A1	20151021	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20150710
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JP2016505736 T2	20160225	LSPB	+	published / reissued	
JP2016505736 T2	20161104	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	TEXT : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20161104
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KR20150094746 A	20150819	LSPB	+	published / reissued	
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NZ709867 A	20170630	LSRE	ERR	ERROR OR CORRECTION	TEXT : THE TITLE HAS BEEN CORRECTED TO TITLE: CONSTRUCTION PANEL; FILING DATE: 10 JUL 2015; STATUS: REJECTED; KIND CODE: TITLE: CONSTRUCTION PANEL; FILING DATE: 10 JUL 2015; STATUS: REJECTED; KIND CODE: TITLE: CONSTRUCTION PANEL; FILING DATE: 16 FEB 2017; STATUS: REJECTED; KIND CODE: TITLE: CONSTRUCTION PANEL; FILING DATE: 07 MAR 2017; STATUS: REJECTED; KIND CODE: TITLE: CONSTRUCTION PANEL; FILING DATE: 08 JUN 2017; STATUS: REJECTED; KIND CODE: TITLE: CONSTRUCTION PANEL; FILING DATE: 20 JUN 2017; STATUS: PROPOSED; KIND CODE: EFFECTIVE DATE : 20170620
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SG11201504626Q A1	20150730	LSPB	+	published / reissued	
TH170761 A	20171123	LSPB	+	published / reissued	
TN2015000268 A1	20161003	LSPB	+	published / reissued	

TW201432121 A	20140816	LSPB	+	published / reissued	
UA115256 C2	20171010	LSGT	+	granted / extensions (spc, cpc, pte)	
UA115256 C2	20331212	PEXP		Calculated Patent Term Expiry	
US2015314565 AA	20151105	LSPB	+	published / reissued	
US2015314565 AA	20150616	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN PLACO SAS, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:HOTCHIN, GLEN; JONES, NICHOLAS; REEL/FRAME:035842/0626 EFFECTIVE DATE : 20140305
US2015314565 AA	20170413	LSAL	NAF1	Notice of Appeal Filed	
US2015314565 AA	20170517	LSAL	ABE1	Appeal Brief (or Supplemental Brief) Entered and Forwarded to Examiner	
US2015314565 AA	20170822	LSSES	NFA1	Non Final Action Mailed	
US2015314565 AA	20171106	LSSES	NFA1	Non Final Action Mailed	
US2015314565 AA	20180317	LSSES	-NFA2	Non Final Action Counted, Not Yet Mailed	
US2015314565 AA	20180327	LSSES	NFA1	Non Final Action Mailed	
WO14090924 A1	20140619	LSPB	+	published / reissued	
WO14090924 A1	20150611	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2894745 COUNTRY OF REF DOCUMENT : CA
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WO14090924 A1	20150709	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 201591119 COUNTRY OF REF DOCUMENT : EA
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ZA201504968 A	20171220	LSGT	+	granted / extensions (spc, cpc, pte)	

ZA201504968 A	20350709	PEXP	Calculated Patent Term Expiry
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5) Family number: 58397946 (US2017335565A) © PatBase

Title: CONSTRUCTION PANEL HAVING IMPROVED FIXING STRENGTH

Abstract: A gypsum product has a first polymeric additive and a second polymeric additive distributed therein, wherein the first polymeric additive is a synthetic polymer and the second polymeric additive is starch. It has been found that the combination of starch and a synthetic polymer may result in one or more of the following advantages in the manufacture and performance of gypsum products: -increased strength; -greater ease of manufacturing due to the increased fluidity of stucco slurries containing both additives; and -increased resistance to hygroscopic expansion.

Classifications:

International (IPC 8-9): C04B C04B14/42 C04B24/26 C04B24/38 C04B28/14 E04B1/92 E04C2/04 E04C2/06 E04C2/26 (Advanced/Invention); C04B111/00 (Advanced/Non-invention)

CPC: C04B14/42 C04B24/383 C04B24/2623 E04C2/043 C04B28/14 C04B2111/0062

Family:

Publication number	Publication date	Application number	Application date
AR102726 AA	20170322	AR2015P103786	20151120
AU2015348037 AA	20160526	AU20150348037	20151119
BR112017010217 A2	20180206	BR20171110217	20151119
CA2966084 AA	20170427	CA20152966084	20151119
CL2017000968 A1	20171222	CL20170000968	20170418
CN107001142 A	20170801	CN201580062274	20151119
CO20170005627 A2	20170818	CO20170005627	20170606
CU20170064 A7	20180208	CU20170000064	20151119
EP3221528 A1	20170927	EP20150800918	20151119
GB201420674 A0	20150107	GB20140020674	20141120
ID201802814 A	20180323	ID2017P0002544	20151119
IL251919 A0	20170629	IL20150251919	20151119
IN201737014645 A	20170825	IN201737014645	20170425
JP2017536318 T2	20171207	JP20170522609T	20151119
KR20170086487 A	20170726	KR20177012214	20151119
MX2017005628 A1	20170807	MX20170005628	20151119
PE15412017 A1	20171027	PE20170000875	20151119
PH2017500730 A	20171009	PH20170500730	20170420
SG11201703423Y A1	20170530	SG20171103423	20151119
TW201623753 A	20160701	TW20150138447	20151120
US2017335565 AA	20171123	US20150523966	20151119
WO16079530 A1	20160526	WO2015GB53538	20151119

Priority:

GB20140020674 20141120 WO2015GB53538 20151119

Probable Assignee: SAINT GOBAIN PLACO SAS

Assignee(s): (std): BPB LTD ; SAINT GOBAIN PLACO SAS ; SAINT GOBAIN PLACO

Assignee(s): SPARKES JOANNA ; RIDEOUT JAN ; RICHARDSON ADAM ; BROOKS LAURA ; JONES NICOLAS ; JUPP NICOLA

Inventor(s): (std): ADAM RICHARDSON ; BROOKS LAURA ; JAN RIDEOUT ; JOANNA SPARKES ; JONES NICHOLAS ; JONES NICOLAS ; JUPP NICOLA ; LAURA BROOKS ; NICOLA JUPP ; NICOLAS JONES ; RICHARDSON ADAM ; RIDEOUT JAN ; SPARKES JOANNA

Agent(s): MICHAEL BUCK IP; PERRY AND CURRIER; SILVA AND COMPANIA PATENTES Y MARCAS LTDA; LUZ HELENA ADARVE GOMEZ; CHAPMAN AND CO; DESHIMARU TAKESHI; HAKODA ATSUSHI; ASAI KENJI; YAMASAKI KAZUO; ICHIKAWA SATSUKI; HATTORI HIRONOBU; PUGSLEY VICTORIA ET AL

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AR102726 AA	20170322	LSPB	+	published / reissued	
AU2015348037 AA	20160526	LSPB	+	published / reissued	
CA2966084 AA	20170427	LSPB	+	published / reissued	
CL2017000968 A1	20171222	LSPB	+	published / reissued	
CN107001142 A	20170801	LSPB	+	published / reissued	
CN107001142 A	20170801	LSPB	PB01	PUBLICATION	

CO20170005627 A2	20170818	LSPB	+	published / reissued	
CU20170064 A7	20180208	LSPB	+	published / reissued	
EP3221528 A1	20170927	LSPB	+	published / reissued	
EP3221528 A1	20170927	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20170427
EP3221528 A1	20180418	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20180316
GB201420674 A0	20160824	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
ID201802814 A	20180323	LSPB	+	published / reissued	
IN201737014645 A	20170825	LSPB	+	published / reissued	
JP2017536318 T2	20171207	LSPB	+	published / reissued	
KR20170086487 A	20170726	LSPB	+	published / reissued	
MX2017005628 A1	20170807	LSPB	+	published / reissued	
PE15412017 A1	20171027	LSPB	+	published / reissued	
PH2017500730 A	20171009	LSPB	+	published / reissued	
SG11201703423Y A1	20170530	LSPB	+	published / reissued	
TW201623753 A	20160701	LSPB	+	published / reissued	
US2017335565 AA	20171123	LSPB	+	published / reissued	
US2017335565 AA	20170622	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : SAINT-GOBAIN PLACO SAS, FRANCE OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: BROOKS, LAURA; JUPP, NICOLA; SPARKES, JOANNA; AND OTHERS; SIGNING DATES FROM 20170606 TO 20170613; REEL/FRA:042784/0892
WO16079530 A1	20160526	LSPB	+	published / reissued	
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WO16079530 A1	20170504	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2015348037 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20151119 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO16079530 A1	20170522	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO16079530 A1	20170620	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2017112941 COUNTRY OF REF DOCUMENT : RU KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :

WO16079530 A1	20180206	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 112017010217 COUNTRY OF REF DOCUMENT : BR KIND CODE OF REF DOCUMENT : A2 DESIGNATED STATE(S) : EFFECTIVE DATE : 20170516
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6) Family number: 62996188 (WO17174991A1)

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Title: GYPSUM-BASED PANEL

Abstract: A panel has a gypsum matrix, in which the following additives are embedded: glass fibre in an amount greater than 1 wt percent relative to the gypsum and a synthetic polymeric binder in an amount greater than 2.5wt percent relative to the gypsum. The glass fibre and synthetic polymeric binder are present in a weight ratio of at least 2 parts binder to one part fibre. The amount of sand present in the gypsum matrix lies in the range 0-0.5 wt percent relative to the gypsum. The amount of cellulosic fibre present in the gypsum matrix lies in the range 0-2 wt percent relative to the gypsum.

Classifications:

International (IPC 8-9): C04B14/42 C04B24/26 C04B28/14 E04C2/04 (Advanced/Invention)

CPC: E04C2/06 Y02W30/97 E04C2/043 C04B2111/1006 C04B2111/0062 C04B28/14

Family:

Publication number	Publication date	Application number	Application date
GB201608968 A0	20160706	GB20160008968	20160520
GB201609248 A0	20160706	GB20160009248	20160525
TW201806904 A	20180301	TW20170111446	20170405
WO17174991 A1	20171012	WO2017GB50962	20170406

Priority:

GB20160005998 20160408 GB20160008968 20160520 GB20160009248 20160525

Probable Assignee: SAINT GOBAIN CONSTRUCTION PRODUCTS UK LTD

Assignee(s): (std): SAINT GOBAIN CONSTRUCTION PRODUCTS UK LTD

Inventor(s): (std): BROOKS LAURA ; JALLAND DAVID ; JONES NICHOLAS ; JUPP NICOLA ; RICHARDSON ADAM ; RIDEOUT JAN ; SPARKES JOANNA

Agent(s): CHAPMAN HELGA ET AL

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
GB201608968 A0	20171122	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
GB201609248 A0	20180321	LSWD	-AT	APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16(1)	
TW201806904 A	20180301	LSPB	+	published / reissued	
WO17174991 A1	20171012	LSPB	+	published / reissued	