

Search history

Search PA=(TUN ABDUL RAZAK RESEARCH CENTRE) and INV=(HAMID REZA AHMADI) (Results 1)

1:

Search fn=(50108990 or 32149084 or 47894796 or 17895923 or 12575691 or 42080963 or 15849374 or 19707290 or 32149084 or 48463882 or 21810022 or 22968156 or 40966305 or 19220460 or 11125878 or 20370230 or 20370230 or 10979592 or 3810549) (Results 17)

Search 3: fn=(55143633:275 or 57788400:100 or 56032327:100 or 54740050:100 or 49384309:100 or 65125998:90 or 62296670:90 or 62296665:90 or 58523177:90 or 50953791:90 or 48654897:90 or 58024946:85 or 65381265:80 or 65375375:80 or 65126013:80 or 65075642:80 or 63922516:80 or 63865813:80 or 63110593:80 or 62178551:80 or 62121313:80 or 61122880:80 or 60514060:80 or 60402368:80 or 60349648:80 or 59565067:80 or 59565053:80 or 59459225:80 or 59061649:80 or 57131273:80 or 55717239:80 or 55120744:80 or 54905979:80 or 53989902:80 or 53725160:80 or 53185566:80 or 50213430:80 or 49703504:80 or 49065890:80 or 48430689:80 or 48001689:80 or 47799926:80 or 43122837:80 or 33550325:80 or 11613806:80 or 5020832:80 or 4932763:80 or 54634352:70 or 46544758:70 or 6189491:70 or 56823733:65 or 55899468:65 or 55897138:65 or 54125890:65 or 52209167:65 or 51509826:65 or 47408192:65 or 4845825:65 or 4263977:65 or 66203014:60 or 66202988:60 or 66104809:60 or 65759164:60 or 65484732:60 or 65365914:60 or 65329832:60 or 65266457:60 or 65150213:60 or 65138648:60 or 65137349:60 or 65093423:60 or 65084529:60 or 64919371:60 or 64891005:60 or 64889696:60 or 64830267:60 or 64817832:60 or 64815003:60 or 64616953:60 or 64428272:60 or 64342440:60 or 64272018:60 or 64043714:60 or 63895903:60 or 63895883:60 or 63851171:60 or 63843111:60 or 63812859:60 or 63812633:60 or 63723603:60 or 63567885:60 or 63445921:60 or 63132073:60 or 62968439:60 or 62830257:60 or 62728215:60 or 62614980:60 or 62361305:60 or 62256881:60 or 62246447:60) (Results 100)

Search 4: [SP]: [0011] in order that the invention can be fully understood and readily carried into effect, the same will now be described by way of example only, with reference to the accompanying drawings, of which:[0012] fig. 1a is a diagrammatic view of a reinforced concrete frame with masonry infill where an embodiment of a rubber part structural component of the present invention is used in housings which replace three rows of masonry bricks in the infill.[0013] fig. 1b is a diagrammatic view of a reinforced concrete frame with masonry infill where a rubber part of the invention is shown to have replaced rows of mortar between the masonry bricks in the infill and the wall and the r.c. frame.[0014] figs. 2a to 2h show different embodiments of rubber part-containing housings as applied in the manner described in fig. 1 a. [0015] figs. 3a to 3e show different embodiments of the rubber part structural component in cross-section as applied in the manner described in fig. 1 b. (Results 18)

Search IPC=(E04B1/98) (Results 13865)

5:

Search 3 AND 5 (Results 93)

6:

Search 4 AND 5 (Results 5)

7:

Search 8: fn=(50108990 or 32149084 or 47894796 or 17895923 or 12575691 or 42080963 or 15849374 or 19707290 or 32149084 or 48463882 or 21810022 or 22968156 or 40966305 or 19220460 or 11125878 or 20370230 or 20370230 or 10979592 or 3810549) (Results 17)

Search 9: PN=(DE19716179 OR WO9116195 OR US4216856 OR FR2912163 OR CN102268900 OR JP2001254534 OR EP0599145 OR US1856906 OR US2015470 OR JP2001254534 OR CN201671386 OR US2015128511) (Results 11)

Search 9 OR 8 (Results 18)

10:

Title: BUILDING CONSTRUCTION

Abstract: Source: US1856906A 1. The method of forming concrete wall sections which comprises laying-protecting material in a form of predetermined size and shape, laying facing material thereon, separating certain portions of the facing material along an irregular line by placing a spacing member therebetween conforming to the shape of said facing material, and pouring concrete over the facing material to bind the facing material together except along the line of separation.

Classifications:

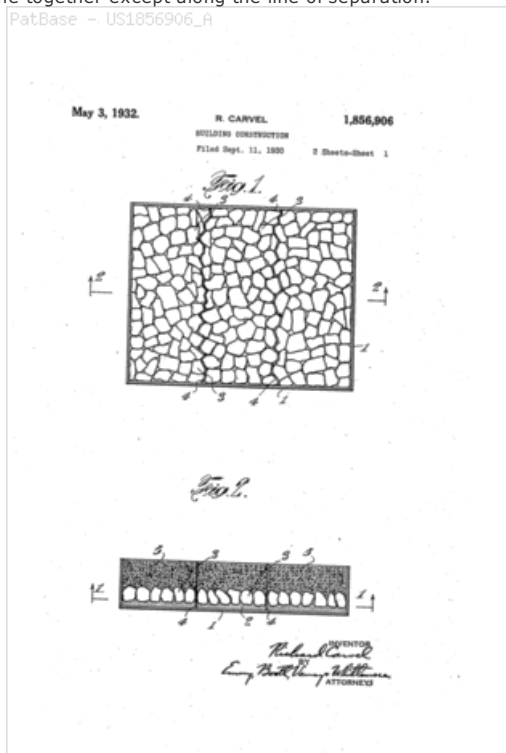
International (IPC 8-9): B28B19/00 B28B7/24 (Advanced/Invention);
B28B19/00 B28B7/00 (Core/Invention)

International (IPC 1-7): E04C1/40

CPC: Y10S264/57 Y10S425/044 B2

European: B28B19/00A B28B7/24B

US: 264/256 264/263 264/DIG.57 42



Family:

Publication number	Publication date	Application number	Application date
US1856906 A	19320503	US19300481086	19300911

Priority:

US19300481086 19300911

Probable Assignee: RICHARD CARVEL

Assignee(s): (std): RICHARD CARVEL

Inventor(s): (std): RICHARD CARVEL

Inventor(s): CARVEL RICHARD

Legal status (INPADOC)

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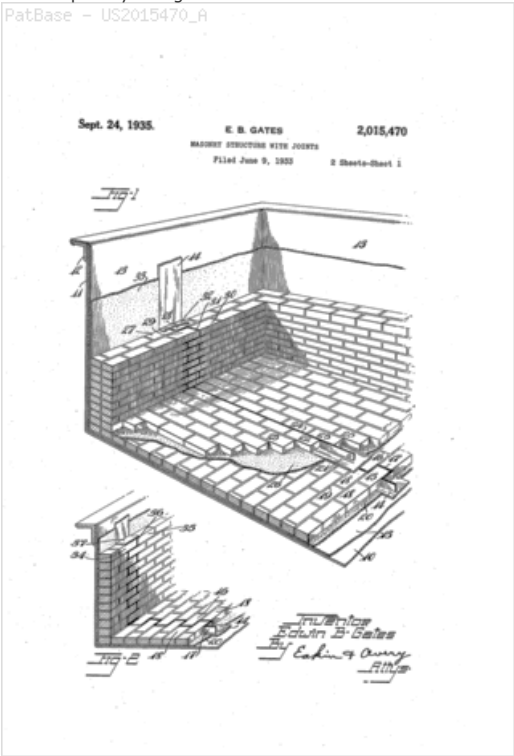
Patent	Date recorded	Event group	Code	Event	Details
US1856906 A	19320503	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: MASONRY STRUCTURE WITH JOINTS

Abstract: Source: US2015470A 1. The combination of two rigid sections of brickwork, each comprising a door portion and a wall portion, said sections having bricks extending from mating margins thereof in such intercalated relation as to lock the sections against movement in a plurality of directions, said mating margins having voids between them to permit of relative bodily movement between said sections, and a body of resilient material completely filling the voids between the sections.

Classifications:

International (IPC 8-9): E04F15/02 (Advanced/Invention);
E04F15/02 (Core/Invention)
International (IPC 1-7): E04H7/04
CPC: E04F15/02016
European: E04F15/02A
US: 52/265 52/284 52/396.08 52/515



Family:

Publication number	Publication date	Application number	Application date
US2015470 A	19350924	US19330675050	19330609

Priority:

US19330675050 19330609

Probable Assignee: ATLAS MINERAL PRODUCTS CO

Assignee(s): (std): ATLAS MINERAL PRODUCTS CO ; ATLAS MINERAL PRODUCTS COMPANY

Assignee(s): THE ATLAS MINERAL PRODUCTS COMPANY

Inventor(s): (std): GATES EDWIN B

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2015470 A	19350924	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: WINDOW FRAME CONSTRUCTION

Abstract: Source: US3328930A ABSTRACT OF THE DISCLOSURE A molded concrete window frame particularly adapted for the reception of a jalousie window, the frame having a header, a sill and connecting jamb members all of which elements are of concrete, the jambs and header being mitered at their points of meeting, the jambs, header and , _ sill being each provided with an inwardly extending rib extending completely around the inside of the frame and serving as a mounting for the jalousie frame. At the meeting of the jambs and headers, slots provided in said jambs and headers co-operate in forming right angle 2Q grooves, and angular brackets are fitted in said grooves, the brackets being covered and concealed by concrete.

Classifications:

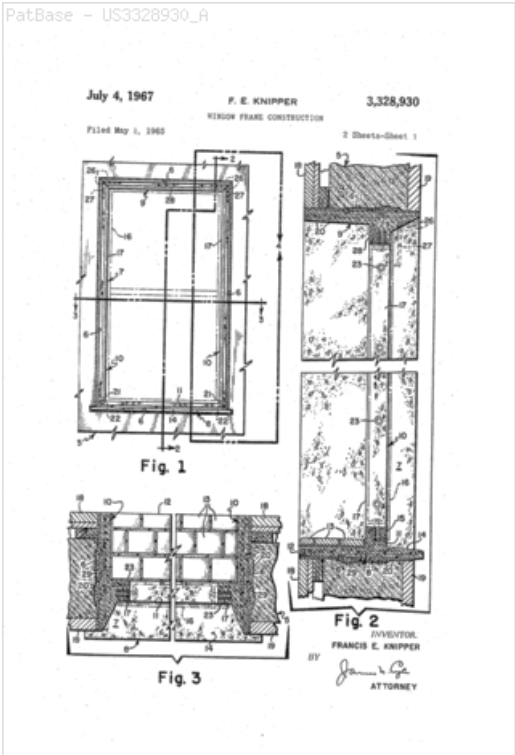
International (IPC 8-9): E06B1/24 (Advanced/Invention);
E06B1/04 (Core/Invention)

International (IPC 1-7): E06B1/24

CPC: E06B1/24

European: E06B1/24

US: 49/504 52/204.5 52/656.5



Family:

Publication number	Publication date	Application number	Application date
US3328930 A	19670704	US19650453379	19650505

Priority:

US19650453379 19650505

Probable Assignee: KNIPPER FRANCIS E

Assignee(s): (std): KNIPPER FRANCIS E

Inventor(s): (std): KNIPPER FRANCIS E

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US3328930 A	19670704	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Wall of building blocks and method of constructing it

Abstract: Source: US4035975A A wall of building blocks, each block being in the form of a parallelepipedon having corrugated or sawtooth shaped upper and lower surfaces, the corrugations or teeth of one surface extending perpendicular to the corrugations or teeth of the other. Two opposite ends of the block may be provided with parallel ribs and slots in asymmetric relation so that when two such blocks are arranged end-to-end a slot in each block accommodates a rib of the other block. Some blocks may have one flat end and a slot in one of its sides to accommodate the rib of another block when the two blocks are arranged to form a corner. All the blocks have cavities extending completely through them. A plurality of such blocks can be arranged end-to-end and one above the other, with the corrugations or sawteeth of each block meshing with the corrugations or sawteeth of another, to form a wall, and mortar or concrete is then poured into all the aligned cavities of the blocks.

Classifications:

International (IPC 8-9): E04B2/18 (Advanced/Invention);

E04B2/02 (Advanced/Non-invention);

E04B2/14 (Core/Invention);

E04B2/02 (Core/Non-invention);

E04C (Subclass/Invention)

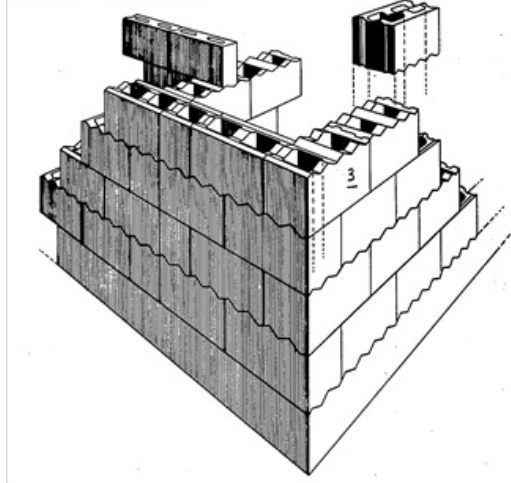
International (IPC 1-7): A63H33/06 A63H33/08 E04C1/10 E04C2/30 F16S5/00

CPC: E04B2/18 E04B2002/0208 E04B2002/021 E04B2002/0213

European: E04B2/18 P04B2/02M1B P04B2/02M1C P04B2/02M1D

US: 52/284 52/592.1 D25/118

PatBase - US4035975_A



Family:

Publication number	Publication date	Application number	Application date
AT338484 B	19770825	AT19740007189	19740906
AT718974 A	19761215	AT19740007189	19740906
BE821158 A1	19750416	BE19746044782	19741016
BR7407530 A	19751104	BR19740007530	19740910
CH587985 A	19770531	CH19740012231	19740909
DE2345568 A1	19750417	DE19732345568	19730910
ES205776 U	19760216	ES19740205776U	19740910
ES205776 Y	19760601	ES19740205776U	19740910
FR2243388 A1	19750404	FR19740030457	19740909
FR2243388 B3	19770617	FR19740030457	19740909
GB1484464 A	19770901	GB19740038519	19740903
IT1029577 A	19790320	IT19740052901	19740906
NL7412724 A	19760330	NL19740012724	19740926
US4035975 A	19770719	US19760658316	19760217

Priority:

DE19732345568 19730910 NL19740012724 19740926 US19760658316 19760217

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Assignee(s): FRANZ JULIUS GERGELY TE KEULEN BONDSREPUBLIC DUIT ; FRANZ JULIUS GERGELY TE KEULEN BONDSREPUBLIC DUITSLAND ; JULIOS GERGELY ; GERGELY FRANZ DT

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Inventor(s): JULIUS DIPL ING GERGELY FRANZ

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Patent	Date recorded	Event group	Code	Event	Details
AT338484 B	19770825	LSGT	+	granted / extensions (spc, cpc, pte)	
AT718974 A	19761215	LSPB	+	published / reissued	
BE821158 A1	19750416	LSPB	+	published / reissued	
BR7407530 A	19751104	LSPB	+	published / reissued	
CH587985 A	19770531	LSGT	+	granted / extensions (spc, cpc, pte)	
CH587985 A	19820528	LSLE	-PL	PATENT CEASED	
DE2345568 A1	19750417	LSPB	+	published / reissued	
ES205776 U	19760216	LSPB	+	published / reissued	
ES205776 Y	19760601	LSGT	+	granted / extensions (spc, cpc, pte)	

FR2243388 A1	19750404	LSPB	+	published / reissued
FR2243388 B3	19770617	LSGT	+	granted / extensions (spc, cpc, pte)
GB1484464 A	19770901	LSGT	+	granted / extensions (spc, cpc, pte)
GB1484464 A	19780112	LSGT	+PS	PATENT SEALED
GB1484464 A	19820407	LSLE	-PCNP	PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE
IT1029577 A	19790320	LSGT	+	granted / extensions (spc, cpc, pte)
NL7412724 A	19760330	LSPB	+	published / reissued
NL7412724 A	19811001	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED
US4035975 A	19770719	LSGT	+	granted / extensions (spc, cpc, pte)

Title: REINFORCEMENT FOR ELASTOMERIC ARTICLES

Abstract: Source: US4216856A A reinforcement strip for an elastomeric material article such as belting or hose comprising a multiplicity of mutually parallel substantially untwisted filaments which are impregnated such that substantially every filament is coated by a matrix material providing a peel strength between filaments of at least 3.15 KN/m. The matrix material may be a plastisol e.g. pvc (polyvinyl chloride) and dry bonding agents are preferably incorporated. Belting and a method of manufacture are included in the invention.

Classifications:

International (IPC 8-9): B29B15/00 B29C70/04 B29C70/20
B29D29/06 B60C9/00 B65G15/30 B65G15/34
F16G1/08 (Advanced/Invention);
B29B15/00 B29C70/04 B29C70/10 B29D29/00 B60C9/00 B65G15/32
F16G1/00 (Core/Invention)

International (IPC 1-7): B29D29/02 B29H7/22 B29H9/02 B29H9/04
B32B15/02 B32B17/02 B32B25/04 B32B25/10 B32B27/04
B32B27/08 B32B27/30 B32B5/12 B32B5/26 B32B5/28 B65G15/30
B65G15/34 C08J5/04 C08J5/10 D01F D06M15/00 D06M15/16
D06N3/06 D07B5/08 F16G1/06

CPC: B29D2030/381 B60C9/0042 B29C70/202 B29C70/50
B29D29/06 B29K2021/00 Y10T428/24091 Y10T428/24116
Y10T428/24124 Y10T428/24132 Y10T428/249942

European: B29C70/20A B29C70/50 B29D29/06 B60C9/00F L29D30/38A L29K21/00

US: 156/181 198/847 428/109 428/112 428/113 428/114 428/298.1



Family:

Publication number	Publication date	Application number	Application date
AU197611929 A1	19770915	AU19760011929	19760312
AU506929 B2	19800131	AU19760011929	19760312
CA1083073 A1	19800805	CA19760247603	19760310
DE2611837 A1	19760930	DE19762611837	19760319
DK120476 A	19760921	DK19760001204	19760319
ES228826 U	19771101	ES19770228826U	19770530
ES446194 A1	19771116	ES19760446194	19760318
ES446194 A2	19771213	ES19760446194	19760318
ES459299 A1	19781101	ES19770459299	19770530
ES459299 A2	19781201	ES19770459299	19770530
FR2304464 A1	19761015	FR19760007967	19760319
FR2304464 B1	19780519	FR19760007967	19760319
GB1546782 A	19790531	GB19750011584	19750320
JP51132284 A2	19761117	JP19760030733	19760319
NL7602844 A	19760922	NL19760002844	19760318
SE7603364 A	19760921	SE19760003364	19760317
TR19945 A	19800508	TR19760019945	19760319
US4216856 A	19800812	US19770862570	19771220
ZA7601623 A	19770330	ZA19760001623	19760316

Priority:

CA19760247603 19760310 GB19750011584 19750320 US19760665417 19760310
GB19750017174 19750425 US19770862570 19771220

Probable Assignee: DUNLOP ENERKA GROUP LTD

Assignee(s): (std): DUNLOP LTD

Assignee(s): DUNLOP ENERKA GROUP LTD ; DUNLOP LIMITED ; DUNLOP LIMITED TE LONDEN ; MORING PETER L E ; BIGGS IAN ; DUNLOP CO LTD

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Inventor(s): PEETAA ROZAARU ERUNSUTO MOORINGU ; P L E MORING ; ERNST MOERING PETER LOTHAR

Agent(s): FETHERSTONHAUGH AND CO

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU197611929 A1	19770915	LSPB	+	published / reissued	
AU506929 B2	19800131	LSGT	+	granted / extensions (spc, cpc, pte)	
CA1083073 A1	19800805	LSPB	+	published / reissued	
CA1083073 A1	19970805	LSLE	-MKEX	EXPIRY	
DE2611837 A1	19760930	LSPB	+	published / reissued	
DE2611837 A1	19830505	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	
DK120476 A	19760921	LSPB	+	published /	

ES228826 U	19771101	LSPB	+	reissued	
FR2304464 A1	19761015	LSPB	+	published / reissued	
FR2304464 A1	19830121	LSLE	-ST	NOTIFICATION OF LAPSE	
FR2304464 B1	19780519	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1546782 A	19790531	LSGT	+	granted / extensions (spc, cpc, pte)	
GB1546782 A	19790815	LSGT	+PS	PATENT SEALED	
GB1546782 A	19820929	LSLE	-PCNP	PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	
JP51132284 A2	19761117	LSPB	+	published / reissued	
NL7602844 A	19760922	LSPB	+	published / reissued	
NL7602844 A	19821101	LSLE	-BV	THE PATENT APPLICATION HAS LAPSED	
SE7603364 A	19760921	LSPB	+	published / reissued	
TR19945 A	19800508	LSGT	+	granted / extensions (spc, cpc, pte)	
US4216856 A	19800812	LSGT	+	granted / extensions (spc, cpc, pte)	
US4216856 A	19971222	LSAS	AS	ASSIGNMENT	OWNER NAME : DUNLOP ENERKA GROUP LTD., GREAT BRITAIN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:DUNLOP LIMITED; REEL/FRAME:008842/0752 EFFECTIVE DATE : 19971212
ZA7601623 A	19770330	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: ANISOTROPIC LAMINATE OF BELTED PORTIONS OF A SCRAP TIRE

Abstract: Source: US5096772A The problem of recycling scrap radial tires is addressed by providing many uses for a laminate made by bonding two or more belt sections of a radial tire, the sidewalls of which have been cut away, the tire then cut open, and de-treaded. The result is a multi-ply structure which is sensibly rigid in all three directions because each belt ply in a belt is reinforced with cords at an angle, the cord angle in one belt ply being opposed to the angle in the other. A slat, bar, or beam, formed with plural belts is essentially rigid in a direction at right angles to its longitudinal axis, because for bending to occur, one belt must be in tension and the other in compression. Neither condition is favored because of the opposed cord angles and belt geometry. Though essentially rigid because of the cord geometry, the amount of rubber in the laminate allows it to be deformable relative to wood or steel having the same thickness. The result is a laminate which has anisotropic properties but may also be used to absorb impact. Belts reinforced with steel wire cords are preferred. Various configurations, such as arcuate slats, bars or beams may be formed, as well as mats and annular bodies.

Classifications:

International (IPC 8-9): B29B17/02 B29C70/20 B32B25/02 E01F15/04 (Advanced/Invention);

B29B17/02 B29C70/10 B32B25/00 E01F15/02 (Core/Invention)

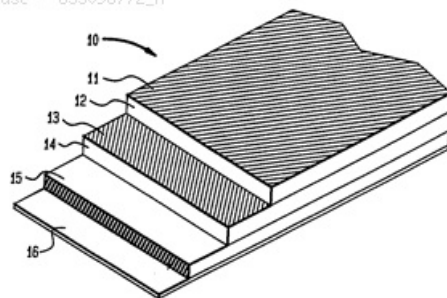
International (IPC 1-7): B32B25/02 B32B31/18 B32B31/26 B32B5/12 B60C9/00

CPC: Y10S428/902 B29B17/0412 B29B17/0042 B29C70/202 B29K2021/00 B29K2105/10 B29K2105/26 B29K2705/00 B29K2705/12 B29L2030/00 B32B25/02 E01B2204/01 E01F15/0461 Y10T152/10801 Y10T428/24058 Y10T428/24091 Y02W30/62 Y02W30/625

European: B29B17/00D4 B29B17/04D B29C70/20A B32B25/02 E01F15/04H L29K105/10 L29K105/26 L29K21/00 L29K705/00 L29K705/12 L29L30/00 P01B204/01

US: 152/531 152/535 156/126 156/130 156/96 428/105 428/109 428/250 428/295 428/902 428/903.3

PatBase - US5096772_R



Family:

Publication number	Publication date	Application number	Application date
CA2068529 AA	19920512	CA19912068529	19910418
US5096772 A	19920317	US19900511578	19900420
WO9116195 A1	19911031	WO1991US02675	19910418

Priority:

US19900511578 19900420 WO1991US02675 19910418

Probable Assignee: TIRE RECYCLING DEVELOPMENT CORP

Assignee(s): (std): SNYDER ROBERT H ; SNYDER ROBERT HARVEY

Assignee(s): TIRE RECYCLING DEVELOPMENT CORP

Inventor(s): (std): SNYDER ROBERT H ; SNYDER ROBERT HARVEY

Agent(s): R WILLIAM WRAY AND ASSOCIATES

Designated states: AT BE CA CH DE DK ES FR GB GR IT JP LU NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CA2068529 AA	19920512	LSPB	+	published / reissued	
CA2068529 AA	19920512	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2068529 AA	19931018	LSLE	-FZDE	DEAD	
US5096772 A	19920317	LSGT	+	granted / extensions (spc, cpc, pte)	
US5096772 A	19951116	LSGT	PAT1	Patented Case	
US5096772 A	19960307	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5096772 A	19980209	LSAS	AS	ASSIGNMENT	OWNER NAME : TIRE RECYCLING DEVELOPMENT CORPORATION, NEW YORK DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:SNYDER, ROBERT H.; COFFIN, JOSEPH H.; REEL/FRAME:008876/0442; SIGNING DATES FROM 19960615 TO 19980207
US5096772 A	19990908	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5096772 A	20030827	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12
WO9116195 A1	19911031	LSPB	+	published / reissued	
WO9116195 A1	19920512	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA REF DOCUMENT NUMBER : 2068529 KIND CODE OF REF DOCUMENT : A

FORMAT OF REF DOCUMENT (F/P) : F					
WO9116195 A1	19920512	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2068529 COUNTRY OF REF DOCUMENT : CA

Title: BICYCLE SEAT

Abstract: Source: US5203607A An improved bicycle seat comprising a rigid shell supporting a foam layer having a pad of thermoplastic elastomer honeycomb either bonded thereto or embedded within said foam. A durable skin covers the shell, foam and padding layers. In an alternative embodiment, the foam, padding and covering skin are combined in a seat cover to be used over a standard bicycle seat.

Classifications:

International (IPC 8-9): B62J1/26 (Advanced/Invention);

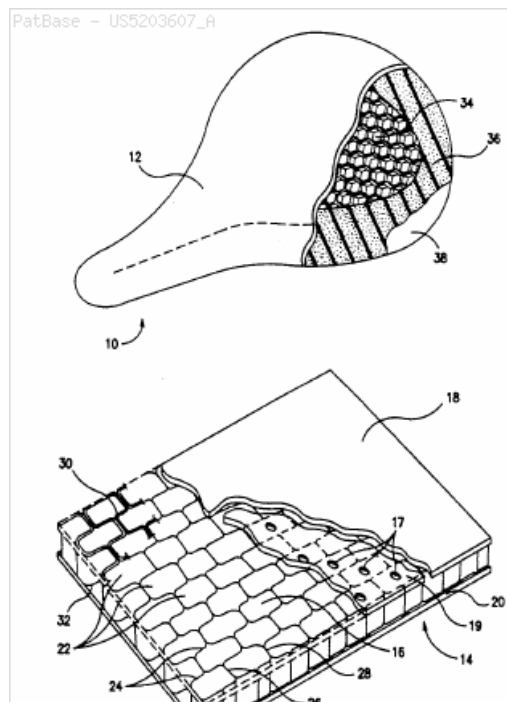
B62J1/00 (Core/Invention)

International (IPC 1-7): B62J1/18

CPC: Y10S297/01 B62J1/26 Y10T428/24017 Y10T428/24149

European: B62J1/26

US: 297/214 297/452 297/452.42 297/458 297/DIG.1 428/100 428/116



Family:

Publication number	Publication date	Application number	Application date
US5203607 A	19930420	US19900625501	19901211

Priority:

US19900625501 19901211

Probable Assignee: SUPRACOR INC

Assignee(s): (std): SUPRACOR SYSTEMS INC

Assignee(s): SUPRACOR SYSTEMS INC A CA CORP ; SUPRACOR INC

Inventor(s): (std): LANDI CURTIS L

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US5203607 A	19930420	LSGT	+	granted / extensions (spc, cpc, pte)	
US5203607 A	19901211	LSAS	AS	ASSIGNMENT	OWNER NAME : SUPRACOR SYSTEMS, INC., 1135 E. ARQUES AVENUE SUNN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST.; ASSIGNOR:LANDI, CURTIS L.; REEL/FRAME:005547/0357 EFFECTIVE DATE : 19901130
US5203607 A	19930408	LSGT	PAT1	Patented Case	
US5203607 A	19960520	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5203607 A	19990927	LSAS	AS	ASSIGNMENT	OWNER NAME : SUPRACOR, INC., CALIFORNIA DESCRIPTION : CHANGE OF NAME; ASSIGNOR:SUPRACOR SYSTEMS, INC.; REEL/FRAME:010263/0644 EFFECTIVE DATE : 19980622
US5203607 A	20000914	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5203607 A	20041020	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

Title: RUBBER CRUMB-REINFORCED CEMENT CONCRETE

Abstract: Source: US5290356A Rubber crumb reinforced cement-concrete structures provide resistance to cracking, improve shock wave absorption, lower heat conductivity and improve the acoustical environment. The structures are comprised of cement-like materials having a predetermined proportion (from about 1 percent to about 30 percent by weight of cement) of recycled scrap rubber crumbs undirectionally aligned in the cross section of said structures.

Classifications:

International (IPC 8-9): C04B18/22 C04B28/02 C04B35/117 E04C2/04 (Advanced/Invention);

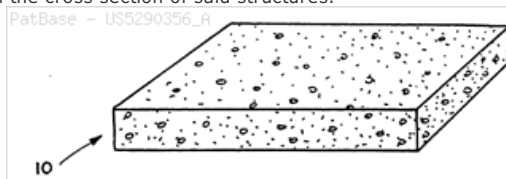
C04B18/04 C04B28/00 C04B35/111 E04C2/04 (Core/Invention)

International (IPC 1-7): C04B16/00 C04B16/04 C04B18/22 E01C5/22

CPC: Y10S52/07 Y10S52/09 C04B35/117 C04B18/22 C04B28/02 C04B2111/0037 C04B2111/00646 C04B2111/2046 C04B2111/23 C04B2111/56 E04C2/04 Y02W30/96

European: C04B18/22 C04B28/02 C04B35/117 E04C2/04 M04B111/00P30 M04B111/00T8B M04B111/20P2 M04B111/23 M04B111/56

US: 106/696 106/724 106/726 106/745 404/32 52/DIG.7 52/DIG.9



Family:

Publication number	Publication date	Application number	Application date
AT208356 E	20011115	AT19940908772T	19940131
AU199461743 A1	19950801	AU19940061743	19940131
DE69429015 D1	20011213	DE19946029015	19940131
DE69429015 T2	20020814	DE19946029015T	19940131
EP0739319 A1	19961030	EP19940908772	19940131
EP0739319 A4	19970305	EP19940908772	19940131
EP0739319 B1	20011107	EP19940908772	19940131
ES2167360 T3	20020516	ES19940908772T	19940131
US5290356 A	19940301	US19920872494	19920423
US5391226 A	19950221	US19940179099	19940110
WO9518775 A1	19950713	WO1994US01543	19940131

Priority:

US19920872494 19920423 US19940179099 19940110 WO1994US01543 19940131

Probable Assignee: TIREMIX CORP

Assignee(s): (std): FRANKOWSKI RICHARD ; TIREMIX CORP

Assignee(s): TIREMIX CORP MOBILE ; TIREMIX CORPORAITON

Inventor(s): (std): FRANKOWSKI RICHARD

Inventor(s): RICHARD FRANKOWSKI

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AT208356 E	20011115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT208356 E	20020615	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	
AT208356 E	20031015	LSLE	-REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE	
AU199461743 A1	19950801	LSPB	+	published / reissued	
DE69429015 D1	20021205	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69429015 D1	20091119	LSLE	-8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE	
DE69429015 T2	20020814	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0739319 A1	19961030	LSPB	+	published / reissued	
EP0739319 A1	19961030	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19960812
EP0739319 A1	19970212	LSRE	RHK1	MAIN CLASSIFICATION (CORRECTION)	CLASSIFICATIONSCHEME : IPC CLASSIFICATIONSYMBOL : C04B 16/04

EP0739319 A1	19970305	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 19970115
EP0739319 A1	19970416	LSLI	111L	LICENCES	TEXT : 970218 0100 CEMTYRE LIMITED
EP0739319 A1	19980506	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19980318
EP0739319 A1	20011107	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20011107
EP0739319 A1	20011115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0739319 A1	20011212	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0739319 A1	20020207	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20020207
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EP0739319 A1	20020207	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20020207
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EP0739319 A1	20020730	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20020730 YEAR OF FEE PAYMENT : 9
EP0739319 A1	20020730	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : CH PAYMENT DATE : 20020730 YEAR OF FEE PAYMENT : 9
EP0739319 A1	20020731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20020731 YEAR OF FEE PAYMENT : 9
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EP0739319 A1	20030131	LSLE	-PG25	LAPSED IN A	COUNTRY OF REF DOCUMENT :

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EP0739319 A1	20030131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030131
EP0739319 A1	20030131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030131
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EP0739319 A1	20030201	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030201
EP0739319 A1	20030801	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030801
EP0739319 A1	20030915	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0739319 A1	20031001	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20030801
EP0739319 A1	20031112	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP0739319 A1	20040816	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20030201
EP0739319 A1	20050131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20050131
EP0739319 A1	20060131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FR NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20060131
EP0739319 A1	20061208	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20060929
EP0739319 A1	20080530	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20080225 YEAR OF FEE PAYMENT : 15
EP0739319 A1	20091030	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DE NOTIFICATIONNOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20090801
EP0739319 A1	20100630	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20100129 YEAR OF FEE PAYMENT : 17
EP0739319 A1	20101217	LSRE	REG	REFERENCE TO A	REF COUNTRY CODE : FR

EP0739319 A1	20110107	LSLE	REG	NATIONAL CODE	REF LEGAL EVENT CODE : D3
				REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20101130
EP0739319 A1	20110131	LSRE	+PGRI	POSTGRANT: PATENT REINSTATED IN CONTRACTING STATE	COUNTRY OF REF DOCUMENT : FR REINSTATED DATE : 20101115
EP0739319 A1	20110928	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	REF COUNTRY CODE : EP EFFECTIVE DATE : 20110131
EP0739319 A1	20111130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20110131
EP0739319 A1	20120731	LSRE	+PGRI	POSTGRANT: PATENT REINSTATED IN CONTRACTING STATE	COUNTRY OF REF DOCUMENT : FR REINSTATED DATE : 20101115
EP0739319 A1	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20080130 YEAR OF FEE PAYMENT : 15
EP0739319 B1	20011107	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2167360 T3	20020516	LSGT	+	granted / extensions (spc, cpc, pte)	
US5290356 A	19940301	LSGT	+	granted / extensions (spc, cpc, pte)	
US5290356 A	19931115	LSAS	AS	ASSIGNMENT	OWNER NAME : TIREMIX CORPORATION, ALABAMA DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FRANKOWSKI, RICHARD; REEL/FRAME:006766/0609 EFFECTIVE DATE : 19931104
US5290356 A	19980302	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5290356 A	20010813	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5290356 A	20060301	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5290356 A	20060329	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	
US5290356 A	20060425	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20060301
US5391226 A	19950221	LSGT	+	granted / extensions (spc, cpc, pte)	
US5391226 A	19940819	LSAS	AS	ASSIGNMENT	OWNER NAME : TIREMIX CORPORATION, ALABAMA DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:FRANKOWSKI, RICHARD; REEL/FRAME:007107/0172 EFFECTIVE DATE : 19940718
US5391226 A	19990128	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5391226 A	20020723	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5391226 A	20070221	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5391226 A	20070321	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR	

US5391226 A	20070417	LSLE	-FP	1.362 EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20070221
WO9518775 A1	19950713	LSPB	+	published / reissued	
WO9518775 A1	19960809	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1994908772 COUNTRY OF REF DOCUMENT : EP
WO9518775 A1	19961030	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994908772 COUNTRY OF REF DOCUMENT : EP
WO9518775 A1	19961114	LSWD	REG	REFERENCE TO NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : 8642
WO9518775 A1	19970910	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA
WO9518775 A1	20011107	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1994908772 COUNTRY OF REF DOCUMENT : EP

Title: PROCESS FOR THE MANUFACTURING OF A TOOTHED BELT AND A TOOTHED BELT.

Abstract: The invention relates to a process for the manufacturing of toothed belts from substantially polymeric material. In this process, a drawn strand comprising parallel reinforcing members (2) is formed and a single polymer mix is forced through the said strand from radially outside (1) to radially inside (3) (with respect to belts running over a toothed wheel). In order to increase the maximum-transferrable torque without increasing the weight, the running noise per unit of transferred power and the belt pretensioning, it is proposed that said polymer mixture should have added to it, before forcing between the reinforcing members of the drawn strand, fibres (4) of a length in the range from 0.1 to 5 mm in a concentration in percentages by weight of polymer between 0.5 percent and 20 percent and that the said fibres should be aligned such that - before forcing through - they run predominantly parallel to the reinforcing members of the drawn strand. Toothed belts according to the invention also have fibres in their reverse side.

Classifications:

International (IPC 8-9): B29C43/02 B29C43/28 B29C70/08

B29D29/08 F16G1/28 (Advanced/Invention);

B29C43/02 B29C43/22 B29C70/08 B29D29/00

F16G1/28 (Core/Invention)

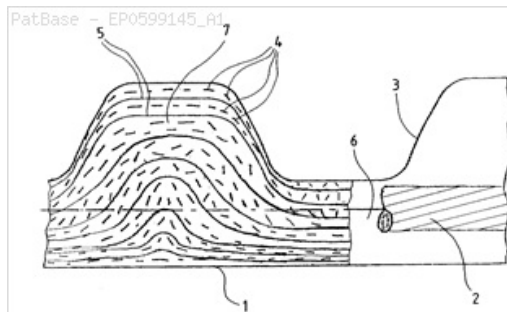
International (IPC 1-7): B29C43/02 B29D29/08

CPC: B29C43/28 B29C70/081 B29D29/08 B29K2021/00

B29K2075/00 B29K2105/14 B29K2277/10 B29L2031/7094 F16G1/28

European: B29C43/28 B29C70/08A B29D29/08 F16G1/28

L29K105/14 L29K21/00 L29K277/10 L29K75/00 L29L31/7094



Family:

Publication number	Publication date	Application number	Application date
CZ285004 B6	19990414	CZ19930002388	19931109
CZ9302388 A3	19940615	CZ19930002388	19931109
DE59305328 D1	19970313	DE19935005328	19931111
EP0599145 A1	19940601	EP19930118273	19931111
EP0599145 B1	19970129	EP19930118273	19931111
ES2099349 T3	19970516	ES19930118273T	19931111

Priority:

DE19924239891 19921127 DE19935005328 19931111

Probable Assignee: CONTINENTAL AG

Assignee(s): (std): CONTINENTAL AG

Assignee(s): CONTINENTAL AKTIENGESELLSCHAFT ; CONTINENTAL AKTIENGESELLSCHAFT 30165 HANNOVER DE

Inventor(s): (std): BERGER RALF ; BERGER RALF ING ; KOCK WOLFGANG DR ; MESCHDE LUDGER DR ; MUELLER ANDREAS ; MULLER ANDREAS ; MULLER ANDREAS ING ; MULLER PAUL ; MULLER PAUL ING ; MUELLER PAUL

Inventor(s): MUELLER PAUL D 30926 SEELZE LETTER DE ; MUELLER ANDREAS D 29336 NIENHAGEN DE ; MESCHDE LUDGER DR D 30163 HANNOVER DE ; KOCK WOLFGANG DR D 30177 HANNOVER DE ; BERGER RALF D 30559 HANNOVER DE

Designated states: DE ES FR GB IT NL SE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CZ285004 B6	19990414	LSGT	+	granted / extensions (spc, cpc, pte)	
CZ285004 B6	20090708	LSLE	-MM4A	Lapse of patent due to failure of payment of fees	EFFECTIVE DATE : 20081109
CZ9302388 A3	19940615	LSPB	+	published / reissued	
DE59305328 D1	19980226	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
EP0599145 A1	19940601	LSPB	+	published / reissued	
EP0599145 A1	19940601	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19940305
EP0599145 A1	19960522	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 19960403
EP0599145 A1	19970516	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2099349 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 FORMAT OF REF DOCUMENT (F/P) : P

EP0599145 A1	19980121	LSGT	+26N	NO OPPOSITION FILED	
EP0599145 A1	20080131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : ES PAYMENT DATE : 20071129 YEAR OF FEE PAYMENT : 15
EP0599145 A1	20080131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : NL PAYMENT DATE : 20071119 YEAR OF FEE PAYMENT : 15
EP0599145 A1	20080430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20071120 YEAR OF FEE PAYMENT : 15
EP0599145 A1	20090130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20081121 YEAR OF FEE PAYMENT : 16
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EP0599145 A1	20090331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20081114 YEAR OF FEE PAYMENT : 16
EP0599145 A1	20090331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20081124 YEAR OF FEE PAYMENT : 16
EP0599145 A1	20090430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20081113 YEAR OF FEE PAYMENT : 16
EP0599145 A1	20090729	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20081111
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EP0599145 A1	20091130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GB DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20081111
EP0599145 A1	20100128	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE :

					20081112
EP0599145 A1	20100129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20091119 YEAR OF FEE PAYMENT : 17
EP0599145 A1	20100129	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20091112 YEAR OF FEE PAYMENT : 17
EP0599145 A1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : ES DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20081112
EP0599145 A1	20100430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20091201 YEAR OF FEE PAYMENT : 17
EP0599145 A1	20100430	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20091121 YEAR OF FEE PAYMENT : 17
EP0599145 A1	20110131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20101130 YEAR OF FEE PAYMENT : 18
EP0599145 A1	20110228	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DE PAYMENT DATE : 20101202 YEAR OF FEE PAYMENT : 18
EP0599145 A1	20110331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : IT PAYMENT DATE : 20101126 YEAR OF FEE PAYMENT : 18
EP0599145 A1	20110331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20101112 YEAR OF FEE PAYMENT : 18
EP0599145 A1	20120131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : SE PAYMENT DATE : 20111128 YEAR OF FEE PAYMENT : 19
EP0599145 A1	20120131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20111130 YEAR OF FEE PAYMENT : 19
EP0599145 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20121112
EP0599145 A1	20130823	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE :

					20130731
EP0599145 A1	20130830	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : IT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20121111
EP0599145 A1	20130912	LSDW	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R119 REF DOCUMENT NUMBER : 59305328 COUNTRY OF REF DOCUMENT : DE EFFECTIVE DATE : 20130601
EP0599145 A1	20131031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20130601
EP0599145 A1	20131129	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : FR DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20121130
EP0599145 B1	19970129	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2099349 T3	19970516	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2099349 T3	19970516	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 599145 COUNTRY OF REF DOCUMENT : ES

Title: NOX-CLEANING PAVING BLOCK

Abstract: Source: US5861205A An NOx-cleaning paving block comprising a surface layer which contains titanium dioxide and which is layered on a concrete-made base layer.

Classifications:

International (IPC 8-9): B01D53/86 B01D53/88 B01D53/94 B01J20/12 B01J21/06 B01J35/02 C04B28/02 C04B41/50 C04B41/65 E01C1/00 E01C5/00 E01C5/06 E01C5/22 E04B5/44 (Advanced/Invention); E01C5/00 E04B5/44 (Advanced/Non-invention); B01D53/86 B01D53/88 B01D53/94 B01J20/10 B01J21/00 B01J35/00 C04B28/00 C04B41/45 C04B41/60 E01C1/00 E01C5/00 E01C5/06 (Core/Invention)

International (IPC 1-7): B01D53/86 B01D53/88 B01D53/94 B01J20/12 B01J21/06 B01J23/00 B01J35/02 C04B14/04 C04B14/06 C04B14/10 C04B14/22 C04B14/30 C04B28/02 C04B41/65 E01C5/00 E01C5/06 E01C5/22 E04B5/44

CPC: Y10T428/24355 Y10T428/24372 Y10T428/24421 Y10T428/2443 Y10T428/24479 Y10T428/2495 Y10T428/256 B01J21/063 B01D53/885 B01D2259/4591 B01J35/02 C04B28/02 C04B41/009 C04B41/5041 C04B41/65 C04B2111/00612 E01C1/005 Y10T428/249967 Y10T428/24997

European: B01D53/88B B01J21/06T B01J35/02 C04B28/02 C04B41/00V C04B41/50P46 C04B41/65 E01C1/00C L01D259/45Y M04B111/00T6

US: 428/141 428/143 428/149 428/150 428/156 428/213 428/312.2 428/312.8 428/328 428/689 502/349 502/350

PatBase - US5861205_A

U.S. Patent Jan. 19, 1999 Sheet 1 of 7 5,861,205

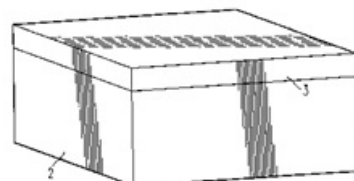


FIG. 1

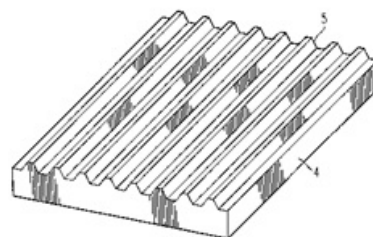


FIG. 2

Family:

Publication number	Publication date	Application number	Application date
AT230296 E	20030115	AT19970100554T	19970115
DE69718080 D1	20030206	DE19976018080	19970115
DE69718080 T2	20031030	DE19976018080T	19970115
DK0786283 T3	20030505	DK19970100554T	19970115
EP0786283 A1	19970730	EP19970100554	19970115
EP0786283 B1	20030102	EP19970100554	19970115
JP10046512 A2	19980217	JP19960206764	19960806
JP10096204 A2	19980414	JP19960251359	19960924
JP2988376 B2	19991213	JP19960126659	19960522
JP3319301 B2	20020826	JP19960251359	19960924
JP3732279 B2	20060105	JP19960206764	19960806
JP9268509 A2	19971014	JP19960126659	19960522
KR100439136 B1	20040916	KR19970001878	19970123
KR19980023926 A	19980706	KR19970001878	19970123
US5861205 A	19990119	US19970789204	19970124

Priority:

JP19960010010 19960124 JP19960126659 19960522 JP19960251359 19960924
JP19960206764 19960806

Probable Assignee: MITSUBISHI MATERIAL CORP

Assignee(s): (std): MITSUBISHI MATERIAL KENZAI KK ; MITSUBISHI MATERIALS CORP

Assignee(s): MITSUBISHI MATERIARU KK ; MITSUBISHI MATERIALS CORP TOKIO TOKYO ; MITSUBISHI MATERIAL CORP

Inventor(s): (std): MURATA KOZO ; MURATA YOSHIHIKO ; OBATA HIROSHI ; TAWARA HIDEO ; OBATA KOJI

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

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AT230296 E	20030115	LSGT	+	granted / extensions (spc, cpc, pte)	
AT230296 E	20030815	LSPB	+UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION	REF DOCUMENT NUMBER : 0786283 COUNTRY OF REF DOCUMENT : EP

DE69718080 D1	20040205	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69718080 T2	20031030	LSGT	+	granted / extensions (spc, cpc, pte)	
DK0786283 T3	20030505	LSGT	+	granted / extensions (spc, cpc, pte)	
EP0786283 A1	19970730	LSPB	+	published / reissued	
EP0786283 A1	19970730	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 19970214
EP0786283 A1	20011212	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20011026
EP0786283 A1	20030102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CH NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030102
EP0786283 A1	20030102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030102
EP0786283 A1	20030102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030102
EP0786283 A1	20030102	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030102
EP0786283 A1	20030108	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D TEXT : 20030102
EP0786283 A1	20030115	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP0786283 A1	20030131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : MC NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES LAPSED DATE : 20030131
EP0786283 A1	20030205	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP0786283 A1	20030402	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030402
EP0786283 A1	20030402	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030402
EP0786283 A1	20030715	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP0786283 A1	20030730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA	COUNTRY OF REF DOCUMENT : ES NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION

				POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20030730
EP0786283 A1	20040102	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20031003
EP0786283 A1	20040109	LSLI	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : CL
EP0786283 A1	20040701	LSLI	NLUE	NL: LICENCE REGISTERED WITH REGARD TO EUROPEAN PATENTS	REF COUNTRY CODE : EP EFFECTIVE DATE : 20040406
EP0786283 A1	20150122	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 19
EP0786283 A1	20160121	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : LU PAYMENT DATE : 20160125 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160331	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : NL PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IT PAYMENT DATE : 20160127 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : IE PAYMENT DATE : 20160122 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160429	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DK PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : GB PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : AT PAYMENT DATE : 20160121 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : BE PAYMENT DATE : 20160120 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20160531	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160121 YEAR OF FEE PAYMENT : 20
EP0786283 A1	20170115	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R071 REF DOCUMENT NUMBER : 69718080 COUNTRY OF REF DOCUMENT : DE
EP0786283 A1	20170116	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EUP EFFECTIVE DATE : 20170115
EP0786283 A1	20170208	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : PE20 EXPIRY DATE : 20170114
EP0786283 A1	20170222	LSLE	REG	REFERENCE TO	REF COUNTRY CODE : IE

EP0786283 A1	20170315	LSLE	REG	A NATIONAL CODE REFERENCE TO A NATIONAL CODE	REF LEGAL EVENT CODE : MK9A REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK07 REF DOCUMENT NUMBER : 230296 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20170115
EP0786283 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170115
EP0786283 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GB NOTIFICATION OF LAPSE : LAPSE BECAUSE OF EXPIRATION OF PROTECTION LAPSED DATE : 20170114
EP0786283 B1	20030102	LSGT	+	granted / extensions (spc, cpc, pte)	
JP10046512 A2	19980217	LSPB	+	published / reissued	
JP10096204 A2	19980414	LSPB	+	published / reissued	
JP2988376 B2	19991213	LSGT	+	granted / extensions (spc, cpc, pte)	
JP2988376 B2	20071004	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20071008 YEAR OF FEE PAYMENT : 8
JP2988376 B2	20071009	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20081008 YEAR OF FEE PAYMENT : 9
JP2988376 B2	20081021	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20091008 YEAR OF FEE PAYMENT : 10
JP2988376 B2	20091209	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R350
JP2988376 B2	20100209	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20101008 YEAR OF FEE PAYMENT : 11
JP2988376 B2	20101005	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20111008 YEAR OF FEE PAYMENT : 12
JP2988376 B2	20111004	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20121008 YEAR OF FEE PAYMENT : 13
JP2988376 B2	20121002	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20131008 YEAR OF FEE PAYMENT : 14
JP3319301 B2	20020826	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3319301 B2	20080529	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 6
JP3319301 B2	20080610	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 7
JP3319301 B2	20090604	LSFE	+FPAY	RENEWAL FEE	YEAR OF FEE PAYMENT : 7

JP3319301 B2	20090609	LSFE	+FPAY	PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	
JP3319301 B2	20091120	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3319301 B2	20091209	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 8
JP3319301 B2	20091209	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	TEXT : JAPANESE INTERMEDIATE CODE: R350
JP3319301 B2	20100608	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 9
JP3319301 B2	20110531	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3319301 B2	20120531	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 10
JP3319301 B2	20120605	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	YEAR OF FEE PAYMENT : 11
JP3319301 B2	20160924	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP3732279 B2	20060105	LSGT	+	granted / extensions (spc, cpc, pte)	
JP3732279 B2	20050826	LSGT	+TRDD	DECISION OF GRANT OR REJECTION WRITTEN	
JP3732279 B2	20050912	LSGT	+A01	WRITTEN DECISION TO GRANT A PATENT OR TO GRANT A REGISTRATION (UTILITY MODEL)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A01 EFFECTIVE DATE : 20050909
JP3732279 B2	20051020	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20051012
JP3732279 B2	20051021	LSGT	+R150	CERTIFICATE OF PATENT OR REGISTRATION OF UTILITY MODEL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R150
JP3732279 B2	20090414	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20091021 YEAR OF FEE PAYMENT : 4
JP3732279 B2	20091015	LSAS	S111	REQUEST FOR CHANGE OF OWNERSHIP OR PART OF OWNERSHIP	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R313117
JP3732279 B2	20091023	LSAS	R350	WRITTEN NOTIFICATION OF REGISTRATION OF TRANSFER	DESCRIPTION : JAPANESE INTERMEDIATE CODE: R350
JP3732279 B2	20100209	LSFE	+FPAY	RENEWAL FEE PAYMENT (EVENT DATE IS	DESCRIPTION : PAYMENT UNTIL: 20101021 YEAR OF FEE PAYMENT : 5

JP3732279 B2	20101005	LSFE	+FPAY	RENEWAL DATE OF DATABASE) RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20111021 YEAR OF FEE PAYMENT : 6
JP3732279 B2	20111004	LSFE	+FPAY	RENEWAL DATE OF DATABASE) RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20121021 YEAR OF FEE PAYMENT : 7
JP3732279 B2	20121002	LSFE	+FPAY	RENEWAL DATE OF DATABASE) RENEWAL FEE PAYMENT (EVENT DATE IS RENEWAL DATE OF DATABASE)	DESCRIPTION : PAYMENT UNTIL: 20131021 YEAR OF FEE PAYMENT : 8
JP3732279 B2	20160806	LSLE	-EXPY	CANCELLATION BECAUSE OF COMPLETION OF TERM	
JP9268509 A2	19971014	LSPB	+	published / reissued	
KR100439136 B1	20040916	LSGT	+	granted / extensions (spc, cpc, pte)	
KR100439136 B1	20010929	LSES	A201	REQUEST FOR EXAMINATION	
KR100439136 B1	20040116	LSES	-E902	NOTIFICATION OF REASON FOR REFUSAL	
KR100439136 B1	20040513	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR100439136 B1	20040625	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR100439136 B1	20130614	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20130614 YEAR OF FEE PAYMENT : 10
KR100439136 B1	20140616	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20140616 YEAR OF FEE PAYMENT : 11
KR100439136 B1	20150612	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20150612 YEAR OF FEE PAYMENT : 12
KR100439136 B1	20160621	LSFE	FPAY	ANNUAL FEE PAYMENT	PAYMENT DATE : 20160621 YEAR OF FEE PAYMENT : 13
KR19980023926 A	19980706	LSPB	+	published / reissued	
US5861205 A	19990119	LSGT	+	granted / extensions (spc, cpc, pte)	
US5861205 A	19970428	LSAS	AS	ASSIGNMENT	OWNER NAME : MITSUBISHI MATERIAL CORPORATION, JAPAN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:MURATA, YOSHIHIKO; OBATA, HIROSHI; TAWARA, HIDEO; AND OTHERS; REEL/FRAME:008475/0774; SIGNING DATES FROM 19970221 TO 19970224
US5861205 A	19981221	LSGT	PAT1	Patented Case	
US5861205 A	20000516	LSRE	CC	CERTIFICATE OF CORRECTION	
US5861205 A	20020709	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5861205 A	20060713	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5861205 A	20061219	LSRX	+RR	REQUEST FOR REEXAMINATION FILED	EFFECTIVE DATE : 20060707
US5861205 A	20100715	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

Title: Anisotropic moulded part used as transport or conveyor belt or rubber tyre

Abstract: Source: DE19716179A1 Anisotropic moulded part comprises a reinforced component of polymer of E-modulus 1000-5000 N/mm² which is embedded in an elastomer matrix of E-modulus 200-600 N/mm². Also claimed is the manufacture of the above moulded part. Preferably the E-modulus of the polymer is 1400-3000 N/mm² and that of the matrix is 300-500 N/mm². The reinforcing component has a ratio of length to breadth of 3:1 - 30:1. The matrix is of vulcanised butadiene-styrene, styrene-butadiene rubber, synthetic isoprene rubber, isoprene-isoprene rubber, isobutene-isoprene rubber or mixtures of two or more of these optionally with natural rubber, or it is ethylene-propylene (diene) rubber or nitrile-butadiene rubber. The matrix includes reinforcing fibres in the form of fibres, rovings, unidirectional strips, fleeces or webbing.

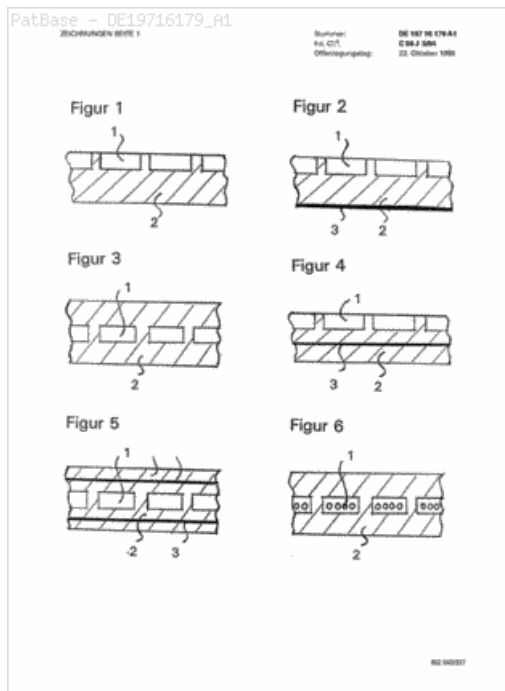
Classifications:

International (IPC 8-9): B29C70/02 B32B25/02 C08J5/12 C08K7/02 C08L71/12 (Advanced/Invention)

International (IPC 1-7): B29D29/00 C08J5/04 C08J5/08 C08J5/12 C08K3/00 C08L13/00 C08L23/16 C08L67/02 C08L71/12 C08L75/06 C08L77/02 C08L77/06 C08L9/00 C08L9/06

CPC: B29C70/023 B29K2021/00 B32B25/02 C08J5/12 C08J2321/00 C08K7/02 C08L71/123

European: B29C70/02A2 B32B25/02 C08J5/12 C08K7/02 C08L71/12B L29K21/00 M08J321/00



Family:

Publication number	Publication date	Application number	Application date
DE19716179 A1	19981022	DE19971016179	19970418

Priority:

DE19971016179 19970418

Probable Assignee: HUELS CHEMISCHE WERKE AG

Assignee(s): (std): HUELS CHEMISCHE WERKE AG

Assignee(s): HUELS AG 45772 MARL DE

Inventor(s): (std): BARON CHRISTIAN DR ; JADAMUS HANS DR ; SCHWICKERT HEINZ DR ; WIES JUERGEN

Inventor(s): WIES JUERGEN 46284 DORSTEN DE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
DE19716179 A1	19981022	LSPB	+	published / reissued	
DE19716179 A1	19991021	LSAS	8127	NEW PERSON/NAME/ADDRESS OF THE APPLICANT	OWNER NAME : DEGUSSA-HUELS AG, 60311 FRANKFURT, DE
DE19716179 A1	20000608	LSLE	-8139	DISPOSAL/NON-PAYMENT OF THE ANNUAL FEE	

Title: SEISMIC ISOLATOR AND BUILDING STRUCTURE

Abstract: Source: JP2001254534A PROBLEM TO BE SOLVED: To solve the point at issue that the construction works of a large scale peripheral structure is required and the construction cost of the whole structure is increased when a seismic isolator is installed. SOLUTION: Constitution in which a plurality of block bodies 11 are laminated while joint fillers 12 composed of a rubber are arranged between each upper and lower block body 11, is adopted.

Classifications:

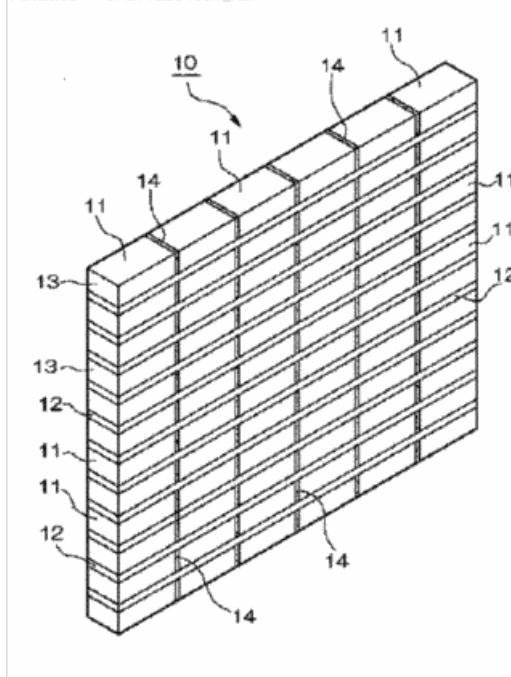
International (IPC 8-9): E04B1/682 E04B1/98

E04H9/02 (Advanced/Invention);

E04B1/68 E04B1/98 E04H9/02 (Core/Invention)

International (IPC 1-7): E04B1/682 E04B1/98 E04H9/02

PatBase - JP2001254534_A2



Family:

Publication number	Publication date	Application number	Application date
JP2001254534 A2	20010921	JP20000065475	20000309

Priority:

JP20000065475 20000309

Probable Assignee:

SHIMIZU CONSTRUCTION CO LTD

Assignee(s): (std):

SHIMIZU CONSTRUCTION CO LTD

Assignee(s):

SHIMIZU CORP

Inventor(s): (std):

NAKAJIMA HIDEO

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
JP2001254534 A2	20010921	LSPB	+	published / reissued	
JP2001254534 A2	20050608	LSSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20050607
JP2001254534 A2	20051019	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20051018

Title: BLOCK FOR FORMING WALL AND THE WALL THUS FORMED

Abstract: Source: US2007199273A A kind of block for building wall and the wall built with said blocks. There are many analogous blocks laid to overlap and stagger with upper/nether block continuously in said wall. The block extends lengthways and comprises top surface (1), bottom surface (2) and two end surfaces (3); the cross section thereof on the whole is a converse trumpet shape; the top surface (1) has a mid ridge (4) higher than the two sides of the surface so as to form the left/right supporting slope (5); the top surface (1) and the bottom surface (2) are formed in this way: when a block overlap with a analogous block thereunder to form a wall, the left and right supporting slope (5) become a blocking structure to lock the two blocks neighbored up and down, the raised dimension of the mid ridge (4) can cut off space-time trochoid. This invention also provides the assistant blocks, which cooperate with said blocks when building wall.

Classifications:

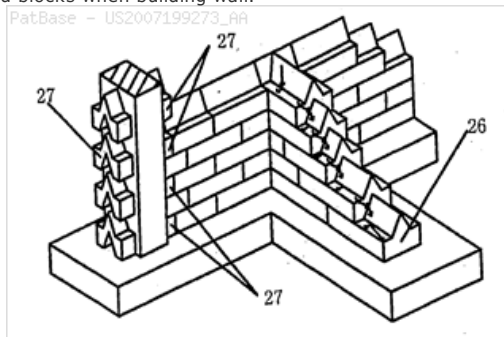
International (IPC 8-9): E04B2/02 E04B2/04 E04B2/08 E04B5/00 E04C 1/00 (Advanced/Invention); E04B2/02 (Advanced/Non-invention); E04B2/02 E04B2/04 E04B5/00 E04C 1/00 (Core/Invention); E04B2/02 (Core/Non-invention)

International (IPC 1-7): E04B1/98 E04B2/08 E04C1/00 E04C1/39

CPC: E04B2/08 E04B2002/021 E04B2002/0265

European: E04B2/08 P04B2/02M1C P04B2/02N4

US: 52/284 52/604



Family:

Publication number	Publication date	Application number	Application date
AU2004274546 AA	20050331	AU20040274546	20040823
AU2004274546 BB	20090528	AU20040274546	20040823
BRPI0414660 A	20061121	BR2004PI14660	20040823
CA2539329 AA	20060316	CA20042539329	20040823
CA2539329 C	20110510	CA20042539329	20040823
CN1601023 A	20050330	CN200410071514	20040707
CN2701944 Y	20050525	CN200420073890U	20040707
EP1669506 A1	20060614	EP20040762110	20040823
EP1669506 A4	20100331	EP20040762110	20040823
EP1669506 B1	20170308	EP20040762110	20040823
IN01552DN2006 A	20070615	IN2006DN01552	20060322
IN237513 B	20100101	IN2006DN01552	20060322
RU2006113599 A	20071110	RU20060113599	20040823
RU2349716 C2	20090320	RU20060113599	20040823
US2007199273 AA	20070830	US20040571878	20040823
WO05028772 A1	20050331	WO2004C N000974	20040823

Priority:

CN20031059561 20030923 CN200410071514 20040707 CN200420073890U 20040707
WO2004C N000974 20040823 WO2004C N000974 20040823

Probable Assignee: WANG RONGXUN

Assignee(s): (std): VANG RONGKSUN ; WANG RONGXUN

Assignee(s): RONGXUN WANG

Inventor(s): (std): VANG RONGKSUN ; WANG RONGXUN

Inventor(s): RONGXUN WANG

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; KOEHLER WALTER; HAMRE SCHUMANN MUELLER AND LARSON PC

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

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU2004274546 AA	20050331	LSPB	+	published / reissued	
AU2004274546 AA	20090924	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
AU2004274546 BB	20090528	LSGT	+	granted / extensions (spc, cpc, pte)	
BRPI0414660 A	20061121	LSPB	+	published / reissued	
BRPI0414660 A	20131224	LSES	B07A	TECHNICAL EXAMINATION (OPINION): PUBLICATION OF TECHNICAL EXAMINATION	

(OPINION)					
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BRPI0414660 A	20150324	LSRV	B09B	DECISION: REFUSAL	DESCRIPTION : MANTIDO O INDEFERIMENTO UMA VEZ QUE NAO FOI APRESENTADO RECURSO DENTRO DO PRAZO LEGAL.
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CA2539329 AA	20070614	LSES	+EEER	EXAMINATION REQUEST	
CA2539329 C	20110510	LSGT	+	granted / extensions (spc, cpc, pte)	
CN1601023 A	20050330	LSPB	+	published / reissued	
CN1601023 A	20050330	LSPB	+C06	PUBLICATION	
CN1601023 A	20100310	LSRV	-C12	REJECTION OF A PATENT APPLICATION AFTER ITS PUBLICATION	
CN2701944 Y	20050525	LSGT	+	granted / extensions (spc, cpc, pte)	
CN2701944 Y	20050525	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN2701944 Y	20120905	LSLE	-C17	CESSATION OF PATENT RIGHT	
EP1669506 A1	20060614	LSPB	+	published / reissued	
EP1669506 A1	20060614	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20060317
EP1669506 A1	20100331	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20100303
EP1669506 A1	20120718	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20120613
EP1669506 A1	20161019	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20160920
EP1669506 A1	20170308	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
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EP1669506 B1	20170308	LSGT	+	granted / extensions (spc, cpc, pte)	
IN01552DN2006 A	20070615	LSPB	+	published / reissued	
IN237513 B	20100101	LSGT	+	granted / extensions (spc, cpc, pte)	
RU2006113599 A	20071110	LSPB	+	published / reissued	
RU2349716 C2	20090320	LSGT	+	granted / extensions (spc, cpc, pte)	
US2007199273 AA	20070830	LSPB	+	published / reissued	

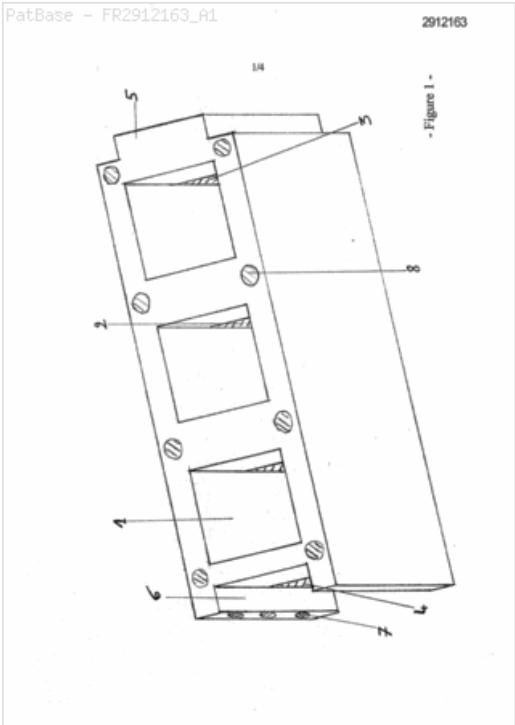
US2007199273 AA	20120326	LSWD	-ABD3	Abandoned -- Failure to Respond to an Office Action	
WO05028772 A1	20050331	LSPB	+	published / reissued	
WO05028772 A1	20060316	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2539329 COUNTRY OF REF DOCUMENT : CA
WO05028772 A1	20060317	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004762110 COUNTRY OF REF DOCUMENT : EP
WO05028772 A1	20060421	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2004274546 COUNTRY OF REF DOCUMENT : AU
WO05028772 A1	20060424	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2006113599 COUNTRY OF REF DOCUMENT : RU
WO05028772 A1	20060518	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2004274546 COUNTRY OF REF DOCUMENT : AU DATE OF REF DOCUMENT : 20040823 KIND CODE OF REF DOCUMENT : A DESIGNATED STATE(S) :
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WO05028772 A1	20060614	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 2004762110 COUNTRY OF REF DOCUMENT : EP
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WO05028772 A1	20070105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 10571878 COUNTRY OF REF DOCUMENT : US
WO05028772 A1	20070105	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 2007199273 COUNTRY OF REF DOCUMENT : US
WO05028772 A1	20070830	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 10571878 COUNTRY OF REF DOCUMENT : US

Title: CONSTRUCTION BLOCK FOR E.G. WALL, HAS VERTICAL CAVITIES AND HORIZONTAL CAVITIES PERMITTING BINDER MATERIAL TO CROSS AND TO CONNECT BLOCK, WHERE BLOCK IS FABRICATED WITH NATURAL OR SYNTHETIC RUBBER

Abstract: The block has three vertical cavities (1) and a horizontal cavity (2-4) permitting a binder material to cross and to connect following block in upstream and downstream of the block, and steel wire. A stud (5) is fitted in a groove (6) of the block to permit perfect alignment of cavities and gallery (7) to facilitate a passage of sheath, cable or pipe, where the block is fabricated with natural or synthetic rubber of recyclable material. An independent claim is also included for a method for assembling construction block.

Classifications:

International (IPC 8-9): E04B1/12 E04B1/14 E04B2/26 E04C1/00 (Advanced/Invention); E04B1/02 E04B2/14 E04C1/00 (Core/Invention)
CPC: E04B2/16 E04B2002/0206 E04C1/397
European: E04B2/16 E04C1/39C P04B2/02M1A



Family:

Publication number	Publication date	Application number	Application date
FR2912163 A1	20080808	FR20070000731	20070202

Priority:

FR20070000731 20070202

Probable Assignee: VELARDO LAURENT ANTOINE
Assignee(s): (std): VELARDO LAURENT ANTOINE
Assignee(s): LAURENT ANTOINE VELARDO
Inventor(s): (std): VELARDO LAURENT ANTOINE
Inventor(s): LAURENT ANTOINE VELARDO
Agent(s): LAURENT VELARDO

Legal status (INPADOC)

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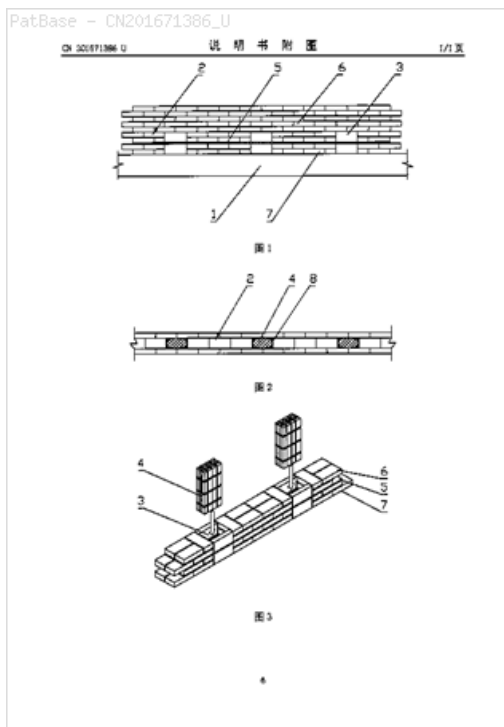
Patent	Date recorded	Event group	Code	Event	Details
FR2912163 A1	20080808	LSPB	+	published / reissued	

Title: Binding rubber bundle capable of energy dissipation and shock absorption of building

Abstract: Source: CN201671386U The utility model discloses a binding rubber bundle capable of energy dissipation and shock absorption of buildings, which comprises a ground ring beam and walls bricked on the ground ring beam. A plurality of rubber bundle mounting holes with equal gap are arranged in the same level in the wall. Rubber bundles are arranged in the rubber bundle mounting holes. The walls are divided into an upper wall and a lower wall by a low-grade cement mortar layer horizontally paved in the wall. The low-grade cement mortar layer and the middle parts of the rubber bundles are arranged in the same level. In case of the major earthquake, the walls are dislocated in the low-grade cement mortar layer, and the built-in binding rubber bundles are subjected to the elastic-plastic shearing deformation, therefore the earthquake energy transferred to the upper structure based on the dissipation is produced. The transfer of the earthquake energy to the upper structure is weakened, which plays a shock absorption role in the upper structure. The rubber bundles can limit too much slippage in case of earthquake and have the limit reset function. The utility model has the advantages of simple construction, convenient material selection, economic and effective property, environment-friendly material selection and convenient building construction in the villages and small towns.

Classifications:

International (IPC 8-9): E04B1/98 E04B2/02
E04H9/02 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN201671386 U	20101215	CN201020199752U	20100521

Priority:

CN201020199752U 20100521

Probable Assignee: UNIV CHONGQING

Assignee(s): (std): CHONGQING UNIV ; UNIV CHONGQING

Assignee(s): CHONGQING UNIVERSITY

Inventor(s): (std): HAN JUN ; HONGLIU XIA ; JIANWEI LIU ; KAI LIU ; LIPING LIU ; NINA ZHENG ; PU YANG ; SHUYAN JI ; YINGMIN LI ; ZHANGMING BO

Inventor(s): ZHENG NINA ; BO ZHANGMING ; XIA HONGLIU ; YANG PU ; LIU JIANWEI ; LIU KAI ; LIU LIPING ; LI YINGMIN ; JI SHUYAN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN201671386 U	20101215	LSGT	+	granted / extensions (spc, cpc, pte)	
CN201671386 U	20101215	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN201671386 U	20140709	LSLE	-C17	CESSATION OF PATENT RIGHT	

Title: MASONRY CONSTRUCTION USING SINGLE-COMPONENT POLYURETHANE FOAM

Abstract: Source: US2011061335A A masonry wall is constructed of multiple courses of bricks, concrete blocks or other masonry units. A single-component urethane foam material is employed as bonding agent and is applied to the facing surfaces of the masonry units. The single-component material cures by absorbing water from its environment. The material sets up slowly to permit the mason to adjust positions of the masonry blocks, and cures to hardness in about a day. The amine in the single component material exchanges water molecules from alumina in the masonry units, and permits strong alumina-amine bonding.

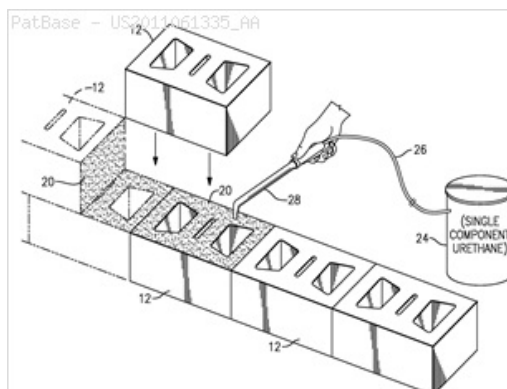
Classifications:

International (IPC 8-9): E04B1/00 E04B1/38 E04B2/10 E04B2/14 E04C2/20 E04G21/00 E04G21/14 E04G23/00 (Advanced/Invention)

CPC: E04B2/14 E04B2002/0273 E04C1/41 E04B2/16

European: E04B2/02 E04B2/14 H04W52/26R H04W52/46 T04W52/26M T04W52/26Q

US: 52/745.1 52/745.100P 52/745.13 52/745.21 52/745.210S 52/747.1



Family:

Publication number	Publication date	Application number	Application date
US2011061335 AA	20110317	US20100878070	20100909
US2012247061 AA	20121004	US20120491653	20120608
US8196370 BB	20120612	US20100878070	20100909
US8516775 BB	20130827	US20120491653	20120608

Priority:

US20090241879P 20090912 US20100878010 20100908 US20100878070 20100909
US20120491653 20120608

Probable Assignee: CALMAR HOLDINGS LLC

Assignee(s): (std): CALMAR HOLDINGS LLC ; SCHECKLER ADDISON C

Inventor(s): (std): SCHECKLER ADDISON C ; SCHECKLER ADDISON C

Agent(s): BERNHARD P

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US2011061335 AA	20110317	LSPB	+	published / reissued	
US2011061335 AA	20100909	LSAS	AS	ASSIGNMENT	OWNER NAME : CALMAR HOLDINGS LLC, NEW YORK DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHECKLER, ADDISON C.; REEL/FRAME:024958/0467 EFFECTIVE DATE : 20100830
US2012247061 AA	20121004	LSPB	+	published / reissued	
US8196370 BB	20120612	LSGT	+	granted / extensions (spc, cpc, pte)	
US8196370 BB	20100909	LSAS	AS	ASSIGNMENT	OWNER NAME : CALMAR HOLDINGS LLC, NEW YORK DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHECKLER, ADDISON C.; REEL/FRAME:024958/0467 EFFECTIVE DATE : 20100830
US8196370 BB	20120523	LSGT	PAT1	Patented Case	
US8196370 BB	20120814	LSRE	CC	CERTIFICATE OF CORRECTION	
US8196370 BB	20160612	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US8196370 BB	20160711	LSLE	-PEX1	Patent Expired Due to NonPayment of Maintenance Fees Under 37 CFR 1.362	

US8196370 BB	20160802	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20160612
US8516775 BB	20130827	LSGT	+	granted / extensions (spc, cpc, pte)	
US8516775 BB	20120608	LSAS	AS	ASSIGNMENT	PARTYTYPE : OWNER OWNER : CALMAR HOLDINGS, LLC, NEW YORK OLDPARTY : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SHECKLER, ADDISON C.; REEL/FRAME:028339/0791 EFFECTIVE DATE : 20120607
US8516775 BB	20130807	LSGT	PAT1	Patented Case	
US8516775 BB	20170214	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

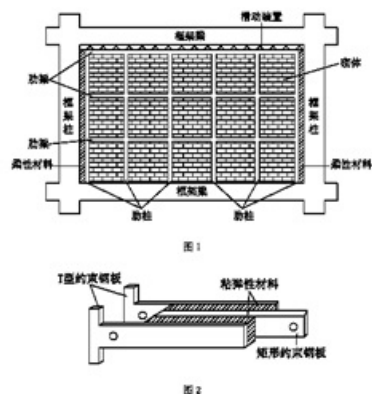
Abstract: Source: CN102268900A The invention relates to a damped anti-seismic filling wallboard for a framework. The filling wallboard has a brickwork (1) which is filled in a space defined by framework beams and columns. The filling wallboard is characterized in that the brickwork (1) is built from multiple brickwork units (2); a viscoelastic layer (3) is respectively arranged between every two adjacent brickwork units (2), between the brickwork at the top layer and an upper framework beam (7), and between the brickwork unit (2) at the bottom layer and a lower framework beam (7'); and one end of one of two adjacent brickwork units (2) and a left framework column (6) are fixedly connected into a whole by a steel bar (4), and a gap (5) is reserved between the other end of the brickwork unit (2) and a right framework column (6'), one end of the other brickwork unit (2) and the right framework column (6') are connected into a whole by a steel bar (4) and a gap (5) is reserved between the other end of the other brickwork unit (2) and the left framework column (6). The damped anti-seismic filling wallboard in the invention can reduce the earthquake response of the structure and protect the safety of the wall body.

Classifications:

International (IPC 8-9): E04B1/98 E04B2/56
E04C2/42 (Advanced/Invention)

PatBase - CN102268900_A

说明书附图 1/2页



Family:

Publication number	Publication date	Application number	Application date
CN102268900 A	20111207	CN201110156375	20110611
CN102268900 B	20121219	CN201110156375	20110611

Priority:

CN201110156375 20110611

Probable Assignee:

UNIV GUANGZHOU

Assignee(s): (std):

GUANGZHOU UNIV ; UNIV GUANGZHOU

Assignee(s):

GUANGZHOU UNIVERSITY

Inventor(s): (std):

GUO YANGZHAO ; ZHOU YUN

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
CN102268900 A	20111207	LSPB	+	published / reissued	
CN102268900 A	20111207	LSPB	+C06	PUBLICATION	
CN102268900 A	20121219	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN102268900 B	20121219	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: VIBRATION ISOLATION STRUCTURE USING PRECAST CONCRETE SHEAR-KEY BLOCK AND ANTI-VIBRATION PAD, AND METHOD FOR CONTROLLING ANTI-VIBRATION OF STRUCTURE USING THE SAME

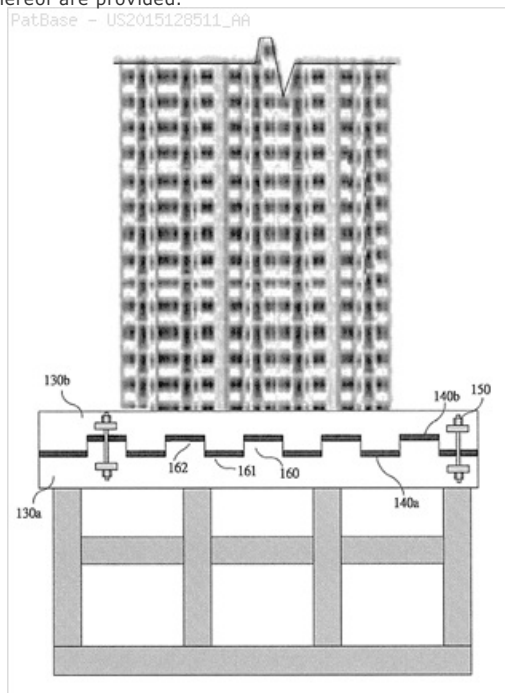
Abstract: Source: US2015128511A In a structure which forms an upper structure and a lower structure divided by an anti-vibration pad for vibration isolation therein, since the concavo-convex type shear key is formed using the precast concrete shear-key block, the construction can be precisely performed according to the predetermined standard. Therefore, a vibration isolation structure using a precast concrete shear-key block and an anti-vibration pad which are capable of effectively blocking vibration and noise, and a constructing method thereof are provided.

Classifications:

International (IPC 8-9): E02D27/34 E02D27/44 E04B1/36 E04B1/98 E04H9/02 (Advanced/Invention)

CPC: E04H9/02 E04B1/98 E04H9/021 E04H9/022

US: 1/1 52/167.7 52/741.3



Family:

Publication number	Publication date	Application number	Application date
CN104674966 A	20150603	CN201410643826	20141110
DE602014001201 D1	20160504	DE201460001201T	20141107
EP2886749 A1	20150624	EP20140192273	20141107
EP2886749 B1	20160323	EP20140192273	20141107
KR101472050 B1	20141215	KR20130138461	20131114
KR101554167 B1	20150918	KR20140109161	20140821
US2015128511 AA	20150514	US20140536691	20141110
US9347235 BB	20160524	US20140536691	20141110
WO15072735 A1	20150521	WO2014KR10835	20141112

Priority:

EP20140192273 20141107 KR20130138461 20131114 KR20140109161 20140821

Probable Assignee: KOREA INST CIVIL ENGINEERING AND BUILDING TECHNOLOGY

Assignee(s): (std): KOREA INST CIVIL ENGINEERING AND BUILDING TECHNOLOGY ; KOREA INST CONSTRUCTION TECH ; KOREA INST OF CIVIL ENGINEERING AND BUILDING TECHNOLOGY ; KOREA INST OF CIVIL ENGINEERING AND BUILDING TECHNOLOGY KICT

Assignee(s): KOREA INST OF CIVIL ENGINEERING AND BUILDINGTECHNOLOGY ; KOREA INST OF CIVIL ENGINEERING AND BUILDING TECHNOLOGY GOYANG SI ; KOREA INSTITUTE OF CONSTRUCTION TECHNOLOGY ; KOREA INST OF CONSTRUCTION TECHNOLOGY

Inventor(s): (std): CHOI KI SUN ; PARK SANG KI ; YOO YOUNG CHAN ; YOU YOUNG CHAN

Agent(s): BECKER KURIG STRAUS; JIANQ CHYUN IP OFFICE; SONG SE GEUN

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 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)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
CN104674966 A	20150603	LSPB	+	published / reissued	
CN104674966 A	20150603	LSPB	+C06	PUBLICATION	
EP2886749 A1	20150624	LSPB	+	published / reissued	
EP2886749 A1	20150624	LSSES	+17P	REQUEST FOR EXAMINATION	EFFECTIVE DATE : 20141107

				FILED	
EP2886749 A1	20151104	LSGT	+INTG	ANNOUNCEMENT OF INTENTION TO GRANT	EFFECTIVE DATE : 20151006
EP2886749 A1	20160323	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP2886749 A1	20160331	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP2886749 A1	20160415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : REF REF DOCUMENT NUMBER : 783326 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160415
EP2886749 A1	20160420	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP2886749 A1	20160504	LSPB	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R096 REF DOCUMENT NUMBER : 602014001201 COUNTRY OF REF DOCUMENT : DE
EP2886749 A1	20160725	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : LT REF LEGAL EVENT CODE : MG4D
EP2886749 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : GR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160624
EP2886749 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : FI NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20160729	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : HR NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
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EP2886749 A1	20160815	LSRV	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : AT REF LEGAL EVENT CODE : MK05 REF DOCUMENT NUMBER : 783326 COUNTRY OF REF DOCUMENT : AT KIND CODE OF REF DOCUMENT : T DESIGNATED STATE(S) : EFFECTIVE DATE : 20160323
EP2886749 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : RS NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323

EP2886749 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : NL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LV NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
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EP2886749 A1	20160831	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : LT NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20160923	LSFE	REG	REFERENCE TO A NATIONAL CODE	COUNTRY OF REF DOCUMENT : FR REF COUNTRY CODE : FR REF LEGAL EVENT CODE : PLFP YEAR OF FEE PAYMENT : 3
EP2886749 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : PL NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IS NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160723
EP2886749 A1	20161031	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : EE NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SK NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
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EP2886749 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING	COUNTRY OF REF DOCUMENT : PT

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EP2886749 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : CZ NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20161130	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SM NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
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EP2886749 A1	20161130	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : FR PAYMENT DATE : 20160923 YEAR OF FEE PAYMENT : 3
EP2886749 A1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : IT NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20161230	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : BE NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20170102	LSRE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DE REF LEGAL EVENT CODE : R097 REF DOCUMENT NUMBER : 602014001201 COUNTRY OF REF DOCUMENT : DE
EP2886749 A1	20170131	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : DK NOTIFICATIONOFLAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 A1	20170131	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	COUNTRY OF REF DOCUMENT : DE PAYMENT DATE : 20160921 YEAR OF FEE PAYMENT : 3
EP2886749 A1	20170228	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED	COUNTRY OF REF DOCUMENT : BG NOTIFICATIONOFLAPSE : LAPSE

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EP2886749 A1	20170301	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20170102
EP2886749 A1	20170531	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	COUNTRY OF REF DOCUMENT : SI NOTIFICATION OF LAPSE : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT LAPSED DATE : 20160323
EP2886749 B1	20160323	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101472050 B1	20141215	LSGT	+	granted / extensions (spc, cpc, pte)	
KR101472050 B1	20141119	LSGT	+E701	DECISION TO GRANT OR REGISTRATION OF PATENT RIGHT	
KR101472050 B1	20141205	LSGT	+GRNT	WRITTEN DECISION TO GRANT	
KR101554167 B1	20150918	LSGT	+	granted / extensions (spc, cpc, pte)	
US2015128511 AA	20150514	LSPB	+	published / reissued	
US9347235 BB	20160524	LSGT	+	granted / extensions (spc, cpc, pte)	
US9347235 BB	20160421	LSFE	+PPR1	Publications -- Issue Fee Payment Received	
US9347235 BB	20160504	LSGT	PAT1	Patented Case	
WO15072735 A1	20150521	LSPB	+	published / reissued	
WO15072735 A1	20160517	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE