COOPERATIVE PATENT CLASSIFICATION

PERFORMING OPERATIONS; TRANSPORTING

SHAPING

LAYERED PRODUCTS

LAYERED PRODUCTS, i.e. PRODUCTS BUILT-UP OF STRATA OF FLAT OR NON-FLAT, e.g. CELLULAR OR HONEYCOMB, FORM

NOTES

1. This subclass covers:
   • layered products comprising different kinds of material or layered products not characterised by the particular kind of material used;
   • a product similar to a layered product but comprising only material in the form of a sheet or network embedded in a mass of plastics or of physically-similar substances which mass penetrates the said sheet or network and lies on both sides of the latter (e.g. so that the sheet or network reinforces the plastics substance) PROVIDED THAT the embedded sheet or network extends coherently or connectedly over substantially the whole area of the product; thus the embedded sheet or network may be a fabric or a series of rods connected by cross wires. The manner of making such a product is, however, classified in this subclass only if it is essentially a process of building-up an assembly of layers of which at least one outer layer is preformed. If the embedded material comprises only a series of unconnected rods, the product is not classified in this subclass.

2. This subclass does not cover:
   • processes or apparatus used in, or in connection with, the production or treatment of any product, if the process or apparatus is fully classifiable in a single other class or subclass for processes or apparatus, e.g. B05, B29, B44D, C08J, C09J, C23;
   • compositions or preparation or treatment thereof, unless they are essentially restricted to layered products and cannot be fully classified in another class without ignoring this restriction;
   • etched metallic pattern on the surface of a printed circuit board.

3. In this subclass:
   • a film formed on a layer by spreading a substance thereon is not considered to constitute a layer itself if it serves only as an adhesive or its purpose is merely to finish a surface of a product;
   • groups designating products cover also methods or apparatus specially adapted for producing such products.

4. In this subclass, the following terms or expressions are used with the meanings indicated:
   • "layer" is a sheet or strip or anything else having a small thickness relatively to its other dimensions which, together with at least one other layer, exists in a product, whether it pre-existed, e.g. as a separate sheet or strip, or was formed during the production of the layered product. It may or may not be homogeneous or cohesive; it may be an assembly of fibres or pieces of material. It may be discontinuous, e.g. in the form of a grating, honeycomb, or frame. It may or may not be in complete contact with the next layer, e.g. a corrugated layer against a flat layer;
   • "layered product" comprises at least two layers secured together. The term "secured" includes any method of uniting layers, e.g. needling, stitching, gluing, nailing, dovetailing or the interposition of an adhesive or adhesive impregnated support. It may also be an intermediate stage in the production of an article which is not layered in its final form, e.g. a panel with a protective layer which is stripped off when the panel is placed in its position of use. The layers are preformed layers or layers formed IN SITU on a preformed layer and may consist of coherent solid materials, including honeycombs and other cellular materials or of non-coherent solid materials composed of assemblies of strands, strips, fibres, tiles or the like;
   • "filamentary layer" means a layer of threads or filaments of any substance (e.g. wires) of more or less unlimited length placed in an orderly arrangement and secured together; it may be woven, knitted, braided, or netted, or formed of threads crossed or laid side by side and bonded together;
   • "fibrous layer" means a random assembly of fibres of limited length, e.g. felt, fleece; the fibres being interengaged or connected, e.g. by adhesive.

5. In this subclass:
   • The classification of layered products is provided for in many classes, most of which are confined to a particular kind of material. However, in order that this subclass may provide a basis for making a complete search with respect to layered products, all relevant subject matter is classified in this subclass even though it may also be classified in other classes.

WARNING

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

- B32B 3/24 covered by B32B 3/266
### 1/00 Layered products having a general shape other than plane

**NOTE**

For classification of a product in this group, surface unevennesses or non-uniformities and the shape of individual layers are ignored.

| 1/02 | Receptacles, e.g. rigid containers, e.g. tanks |
| 1/04 | characterised by feature of form at particular places, e.g. in edge regions (not used) |
| 1/06 | characterised by fillings or added members in hollow portions (not used) |
| 1/08 | Tubular products |

### 3/00 Layered products comprising a layer with external or internal discontinuities or unevennesses, or a layer of non-planar form

| 3/02 | characterised by features of form at particular places, e.g. in edge regions (non-uniform thickness B32B 3/263) |
| 3/04 | characterised by at least one layer folded at the edge, e.g. over another layer (characterised by at least one layer enveloping or enclosing a material) |
| 3/06 | for securing layers together; for attaching the product to another member, e.g. to a support (or to another product, e.g. groove/tongue, interlocking) |
| 3/08 | characterised by added members at particular parts (layer formed of separate pieces of material which are juxtaposed side-by-side B32B 3/14, B32B 3/18) |
| 3/085 | spaced apart pieces on the surface of a layer |
| 3/10 | characterised by a discontinuous layer, i.e. formed of separate pieces of material |

**NOTE**

In this group, a series of spaced separate elements forming in effect a broken surface should be regarded as a layer.

| 3/12 | characterised by a layer of regularly-arranged cells, e.g. a honeycomb structure |
| 3/14 | characterised by a face layer formed of separate pieces of material (which are juxtaposed side-by-side (B32B 5/02 takes precedence)) |
| 3/16 | secured to a flexible backing |
| 3/18 | characterised by an internal layer formed of separate pieces of material (which are juxtaposed side-by-side (B32B 5/02 takes precedence)) |
| 3/20 | of hollow pieces, e.g. tubes; of pieces with channels or cavities |
| 3/22 | of spaced pieces (not used) |

3/26 | characterised by a particular shape of the outline of the cross-section of a continuous layer; characterised by a layer with cavities or internal voids (foam layer B32B 5/18; layer of synthetic resin characterised by fillers that create voids or cavities B32B 27/205; characterised by an apertured layer) |
| 3/263 | [characterised by a layer having non-uniform thickness] |
| 3/266 | [characterised by an apertured layer, the apertures going through the whole thickness of the layer, e.g. expanded metal, perforated layer, slit layer regular cells B32B 3/12] |
| 3/28 | [characterised by a layer comprising a deformed thin sheet, i.e. the layer having its entire thickness deformed out of the plane, e.g. corrugated, crumpled (B32B 29/00 takes precedence)] |
| 3/30 | characterised by a layer formed with recesses or projections, e.g. hollows, grooves, protuberances, ribs (apertured layer B32B 3/266; layer with cavities or internal voids B32B 3/26) |

### 5/00 Layered products characterised by the non-homogeneity or physical structure

**NOTE**

In this group, fibres, filaments, granules, or powder forming or included in a layer may be impregnated, bonded together, or embedded in a substance such as synthetic resin. If the substance of the fibres, or the like, or the impregnating, bonding, or embedding substance, is important it is classified in the relevant group for the substance.

| 5/02 | characterised by structural features of a fibrous or filamentary layer (layer formed of metallic wires B32B 15/02; layer formed of natural mineral fibres B32B 19/02; layer formed of wood fibres B32B 21/02; coated or impregnated fibrous or filamentary layer B32B 2255/02 or B32B 2260/021) |

**NOTES**

1. This group covers, in addition to filamentary and fibrous layers as defined in Note (4) following the title of this subclass, layers of substances having an intrinsic fibrous nature (e.g. paper, wood), if the fibrous nature is important and the particular substance is not important.

2. {When classifying in group B32B 5/02, the chemical composition of the fibres is further classified by using the indexing codes B32B 2262/00 - B32B 2262/14, whenever appropriate.}
Characterised by the interconnection of layers

**WARNING**

Group B32B 7/02 is impacted by reclassification into groups B32B 7/022, B32B 7/023, B32B 7/024, B32B 7/025, B32B 7/026, B32B 7/027, and B32B 7/028. All groups listed in this Warning should be considered in order to perform a complete search.

Mechanical properties

**WARNING**

Groups B32B 7/022, B32B 7/023, B32B 7/025, B32B 7/027, and B32B 7/028 are incomplete pending reclassification of documents from group B32B 7/02. All groups listed in this Warning should be considered in order to perform a complete search.

Optical properties

**WARNING**

Group B32B 7/03 is impacted by reclassification into group B32B 7/035. Groups B32B 7/03 and B32B 7/035 should be considered in order to perform a complete search.

Using arrangements of stretched films, e.g. of mono-axially stretched films arranged alternately

**WARNING**

Group B32B 7/035 is incomplete pending reclassification of documents from group B32B 7/03. Groups B32B 7/03 and B32B 7/035 should be considered in order to perform a complete search.

Interconnection of layers

**WARNING**

Group B32B 7/08 is impacted by reclassification into group B32B 7/09. Groups B32B 7/08 and B32B 7/09 should be considered in order to perform a complete search.
Layered products comprising a [a layer of] metal

15/00

Layered products comprising [a layer of] metal

15/01

all layers being exclusively metallic ([making layered metal workpieces by pressure cladding B23K 20/22; making coatings with a metallic material characterised by its composition C23C 30/00])

15/02

Layered products comprising wires, e.g. mesh

15/04

comprising metal as the main or only constituent of a layer, which is next to another layer of the same or of a different material (B32B 17/06 takes precedence; next to a bituminous or tarry layer B32B 11/08; next to a water-setting substance B32B 13/06)
Layered products characterised by particular substances used

17/00 Layered products essentially comprising sheet glass, or glass, slag, or like fibres

17/02 . . . in the form of fibres or filaments
17/04 . . . bonded with or embedded in a plastic substance
17/06 . . . comprising glass as the main or only constituent of a layer, next to another layer of a specific [material (coating on glass C03C 17/00; safety glazings B32B 17/08 or B32B 17/10; fire protective glazing with intumescent layers B32B 17/069)]
17/061 . . . [metal]
17/062 . . . [wood]
17/063 . . . [rubber]
17/064 . . . [synthetic resin (B32B 17/10 takes precedence)]
17/065 . . . [paper or cardboard]
17/066 . . . [foam]
17/067 . . . [fibres or filaments]
17/068 . . . [particulate matter]
17/069 . . . [intumescent layers (B32B 17/10311 takes precedence)]
17/08 . . . of cellulosic plastic substance [or gelatin]
17/10 . . . of synthetic resin ((producing optical elements from plastics B29D 1/00; constructional form of optical elements G02B)]

NOTES

1. In this group a layer of organic glass is not considered as a glass layer but as a synthetic resin layer;
2. [N: Inventions related to safety glazings (laminated glazings) are classified in all appropriate subgroups B32B 17/1009 - B32B 17/1087, whereby transparent polymeric layers other than the interlayer (B32B 17/1055) are classified using indexing codes

17/10009 . . . [characterized by the number, the constitution or treatment of glass sheets]
17/10018 . . . [comprising only one glass sheet]
17/10027 . . . [the glass sheet not being an outer layer]
17/10036 . . . [comprising two outer glass sheet]
17/10045 . . . [at least one intermediate layer consisting of a glass sheet]
17/10055 . . . [at least one intermediate air space (IG window units comprising two or more parallel glass panes E06B 3/66)]
17/10064 . . . [comprising at least two glass sheets, only one of which being an outer layer]
17/10073 . . . [comprising at least two glass sheets, neither of which being an outer layer]
17/10082 . . . [Properties of the bulk of a glass sheet]

17/10091 . . . [thermally hardened (chemical strengthening B32B 17/10137)]
17/101 . . . [having a predetermined coefficient of thermal expansion [CTE]]
17/1011 . . . [having predetermined tint or excitation purity]
17/10119 . . . [having a composition deviating from the basic composition of soda-lime glass, e.g. borosilicate]
17/10128 . . . [Treatment of at least one glass sheet (cutting of laminated glass C03B 33/076)]
17/10137 . . . [Chemical strengthening]
17/10146 . . . [Face treatment, e.g. etching, grinding or sand blasting]
17/10155 . . . [Edge treatment, chamfering]
17/10165 . . . [particular functional features of the laminated glazing]
17/10174 . . . [Coatings of a metallic or dielectric material on a constituent layer of glass or polymer]
17/10183 . . . [being not continuous, e.g. in edge regions]
17/10192 . . . [patterned in the form of columns or grids]
17/10201 . . . [Dielectric coatings]
17/10211 . . . [Doped dielectric layer, electrically conductive, e.g. SnO2:F]
17/1022 . . . [Metallic coatings]
17/10229 . . . [Metallic layers sandwiched by dielectric layers]
17/10238 . . . [in the form of particles]
17/10247 . . . [containing decorations or patterns for aesthetic reasons; metal wires for this purpose B32B 17/10422]
17/10256 . . . [created by printing techniques]
17/10266 . . . [on glass pane]
17/10275 . . . [on interlayer]
17/10284 . . . [on intermediate layer]
17/10293 . . . [Edge features, e.g. inserts or holes]
17/10302 . . . [Edge sealing]
17/10311 . . . [Intumescent layers for fire protection]
17/10321 . . . [containing liquid layers]
17/1033 . . . [containing temporary protective coatings or layers]
17/10339 . . . [Specific parts of the laminated glazing being colored or tinted (tinted glass B32B 17/1011; tinted interlayer B32B 17/10651)]
17/10348 . . . [comprising an obscuration band]
17/10357 . . . [comprising a tinted intermediate film]
17/10366 . . . [Reinforcements of the laminated glazing against impact or intrusion; metal wires for this purpose B32B 17/10412]
17/10376 . . . [containing metal wires]
17/10385 . . . [for Ohmic resistance heating (Ohmic resistance heating in general H05B 3/84)]
17/10394 . . . [Alarm wires (burglar alarms by breaking glass G08B 13/04)]
17/10403 . . . [for radiation shielding (radiation shielding in general H05K 9/00)]
17/10412 . . . [for reinforcement]
17/10422 . . . [for aesthetic reasons]
Layered products characterised by particular substances used

17/10431 . . . . {Devices for the modulation of light incorporated into the laminated glazing (metallic or dielectric coatings B32B 17/10174; coating on glass in general C03C 17/000)}
17/1044 . . . . { (Variable transmission)}
17/10449 . . . . {Wavelength selective transmission (filters per se G02B 5/20)}
17/10458 . . . . {Polarization selective transmission (polarizing elements per se G02B 5/30)}
17/10467 . . . . { (Variable transmission)}
17/10477 . . . . {thermochromic}
17/10486 . . . . {photochromic}
17/10495 . . . . {optoelectronic, i.e. optical valve}
17/10504 . . . . {liquid crystal layer (devices for the control of the intensity of the light based on liquid crystals G02F 1/13)}
17/10513 . . . . {electrochromic layer (devices for the control of the intensity of the light based on electrochromic elements G02F 1/15)}
17/10522 . . . . {electrophoretic layer (devices for the control of the intensity of the light based on electrophoresis G02F 1/167)}
17/10532 . . . . {suspended particle layer (devices for the control of the intensity of the light based on suspension of oriented dipolar particles G02F 1/172)}
17/10541 . . . . {the laminated glazing acting as an illumination device, i.e. comprising a light source or a light guide (lighting devices for vehicle interior B60Q 3/20; structural combinations of lighting devices with other articles F21V 33/00; light guides in general G02B 6/00)}
17/1055 . . . . {characterized by the resin layer, i.e. interlayer}
17/10559 . . . . { (Shape of the cross-section)}
17/10568 . . . . { (varying in thickness)}
17/10577 . . . . { (Surface roughness)}
17/10587 . . . . {created by embossing}
17/10596 . . . . {created by melt fracture}
17/10605 . . . . {Type of plasticizer}
17/10614 . . . . {comprising particulate matter for purposes other than dying}
17/10623 . . . . {Whitening agents reflecting visible light}
17/10633 . . . . {Infrared radiation absorbing or reflecting agents}
17/10642 . . . . {Thermally conductive agents}
17/10651 . . . . {comprising colorants, e.g. dyes or pigments}
17/1066 . . . . {impacting a tint in certain regions only, i.e. shade band}
17/10669 . . . . {Luminescent agents (luminescent materials C09K 11/00; optical brightening agents C08K 5/0041)}
17/10678 . . . . {comprising UV absorbers or stabilizers, e.g. antioxidants}
17/10688 . . . . {Adjustment of the adherence to the glass layers}
17/10697 . . . . {being cross-linked}
17/10706 . . . . {being photo-polymerized}
17/10715 . . . . {containing polyether}
17/10724 . . . . {containing polynamide}
17/10733 . . . . {containing epoxy}
17/10743 . . . . {containing acrylate (co)polymers or salts thereof}
17/10752 . . . . {containing polycarbonate}
17/10761 . . . . {containing vinyl acetal}
17/1077 . . . . {containing polyurethane}
17/10779 . . . . {containing polyester}
17/10788 . . . . {containing ethylene vinylacetate}
17/10798 . . . . {containing silicone}
17/10807 . . . . { (Making layered products containing glass and synthetic resin layers; apparatus therefor)}
17/10816 . . . . { (by pressing)}
17/10825 . . . . { (isosstatic pressing, i.e. using non rigid pressure-exerting members against rigid parts (isosstatic presses in general B30B 11/001))}
17/10834 . . . . { (using a fluid)}
17/10844 . . . . { (using a membrane between the layered product and the fluid)}
17/10853 . . . . { (the membrane being bag-shaped)}
17/10862 . . . . { (using pressing-rolls)}
17/10871 . . . . { (in combination with particular heat treatment)}
17/1088 . . . . { (by superposing a plurality of layered products)}
17/10889 . . . . { (shaping the sheets, e.g. by using a mould (B32B 17/10816 takes precedence))}
17/10899 . . . . { (by introducing interlayers of synthetic resin)}
17/10908 . . . . { (in liquid form)}
17/10917 . . . . {between two pre-positioned glass layers (spacing elements for window units comprising two or more parallel panes E06B 3/663)}
17/10926 . . . . { (by spraying (spraying in general B05))}
17/10935 . . . . { (as a preformed layer, e.g. formed by extrusion)}
17/10944 . . . . { (in powder form)}
17/10954 . . . . { (by using an aligning laminating device)}
17/10963 . . . . { (specially adapted for repairing the layered products)}
17/10972 . . . . {Degassing during the lamination (B32B 17/10816 takes precedence; during molding B29C 37/006)}
17/10981 . . . . {Pre-treatment of the layers)}
17/1099 . . . . {After-treatment of the layered product, e.g. cooling}

18/00 Layered products essentially comprising ceramics, e.g. refractory products

NOTE

In group B32B 18/00, from 01-10-2008 onwards, features relating to interlayers, additional compositional information or further processing are indexed with codes chosen from C04B 2237/00 - C04B 2237/88

19/00 Layered products comprising a layer of natural mineral fibres or particles, e.g. asbestos, mica
19/02 . . . . {the layer of fibres or particles being impregnated or embedded in a plastic substance}
19/04 . . . . {next to another layer (of the same or of a different material (B32B 17/007 takes precedence))}
19/041 . . . . {of metal}
Layered products characterised by particular substances used

21/00 Layered products comprising [a layer of] wood, e.g. wood board, veneer, wood particle board

21/02 . . . { the layer being formed } of fibres, chips, or particles { , e.g. MDF, HDF, OSB, chipboard, particle board, hardboard } . . . 

21/04 . . . comprising wood as the main or only constituent of a layer { , which is next to another layer of the same or of a different material (B32B 17/062 and B32B 23/044 take precedence; next to a layer of a particular substance B32B 9/042; next to a bituminous or tarry layer B32B 11/042; next to a water setting substance layer B32B 13/10; next to a metal layer B32B 15/10; next to a layer formed of natural mineral fibres or particles B32B 19/042) } 

21/06 . . . of paper or cardboard 

21/08 . . . of synthetic resin 

21/10 . . . Next to a fibrous or filamentary layer 

21/12 . . . next to a particulate layer 

21/13 . . . all layers being exclusively wood 

21/14 . . . comprising wood board or veneer 

23/00 Layered products comprising [a layer of]cellulosic plastic substances { , i.e. substances obtained by chemical modification of cellulose, e.g. cellulose ethers, cellulose esters, viscose } 

23/02 . . . in the form of fibres or filaments { (not used) } 

23/04 . . . comprising such { cellulosic plastic substance as the main or only constituent of a layer, which is next to another layer of the same or of a different material (B32B 17/08 takes precedence) } 

23/06 . . . of paper or cardboard 

23/08 . . . of synthetic resin { (all layers being polymeric B32B 2250/24) } 

23/10 . . . next to a fibrous or filamentary layer 

23/12 . . . next to a particulate layer 

23/14 . . . characterised by containing special compounding ingredients 

23/16 . . . Modifying agents 

23/18 . . . Fillers 

23/20 . . . comprising esters 

23/22 . . . comprising ethers 

25/00 Layered products comprising [a layer of] natural or synthetic rubber { (B32B 5/02, B32B 5/16, B32B 5/18 take precedence; thermoplastic elastomer B32B 2274/00) } 

25/02 . . . with fibres or particles { being present as additives in the layer }
Layered products characterised by particular substances used

33/00 Layered products characterised by particular properties or particular surface features, e.g. particular surface coatings; Layered products designed for particular purposes not covered by another single class

Methods or apparatus for making layered products; Treatment of the layers or of the layered products

NOTE

In groups B32B 37/00(, B32B 38/00, B32B 41/00) and B32B 39/00, the following expressions are used with the meaning indicated:

- "lay-up" is considered to be the action of combining separate layers, one on top of the other, in order to form a half-product for entering the laminating process;
- "laminating" means the action of combining previously unconnected (but possibly laid up) layers to become one product whose layers will remain together;
- "partial laminating" occurs when one layer does not fully cover a surface of another layer, whereby the layer with the greater surface area is laminated on only part of its surface;
- "adhesive" means a layer, or part of a layer, applied in any state or in any manner which is incorporated for the purpose of bonding.

37/00 Methods or apparatus for laminating, e.g. by curing or by ultrasonic bonding

37/0007 . (involving treatment or provisions in order to avoid deformation or air inclusion, e.g. to improve surface quality)
37/0015 . (to avoid warp or curl)
37/0023 . (around holes, apertures or channels present in at least one layer)
37/003 . (to avoid air inclusion)
37/0038 . (involving application of liquid to the layers prior to lamination, e.g. wet laminating (B32B 37/12 takes precedence))
37/0046 . (characterised by constructional aspects of the apparatus)
37/0053 . (Constructional details of laminating machines comprising rollers; Constructional features of the rollers)
2037/0061 . (the apparatus being an office laminator)
2037/0069 . (the apparatus being originally designed for another function, e.g. printer, photocopier)
37/0076 . (characterised in that the layers are not bonded on the totality of their surfaces)
37/0084 . (Point bonding)
2037/0092 . (in which absence of adhesives is explicitly presented as an advantage)
37/02 . characterised by a sequence of laminating steps, e.g. by adding new layers at consecutive laminating stations
37/025 . (Transfer laminating)
37/04 . characterised by the partial melting of at least one layer
37/06 . characterised by the heating method
37/065 . (resulting in the laminate being partially bonded (B32B 37/0076 takes precedence))
37/08 . characterised by the cooling method
37/085 . (Quenching)
37/10 . characterised by the pressing technique, e.g. using action of vacuum or fluid pressure
37/1009 . (using vacuum and fluid pressure)
Methods or apparatus for making layered products; Treatment of the layers or of the layered products

B32B

37/1018 . . . [using only vacuum]
37/1027 . . . [Pressing using at least one press band]
37/1036 . . . [Pressing between one press band and a cylinder]
37/1045 . . . [Intermittent pressing, e.g. by oscillating or reciprocating motion of the pressing means (B32B 37/0076 takes precedence)]
37/1054 . . . [Regulating the dimensions of the laminate, e.g. by adjusting the nip or platen gap]
2037/1063 . . . [using an electrostatic force]
2037/1072 . . . [using a fluid jet]
2037/1081 . . . [using a magnetic force]
2037/109 . . . [using a squeegee]
37/12 . characterised by using adhesives
37/1207 . . . [Heat-activated adhesive (B32B 37/04 takes precedence)]
2037/1215 . . . [Hot-melt adhesive]
2037/1223 . . . [film-shaped]
2037/123 . . . [net-shaped]
2037/1238 . . . [in the form of powder]
2037/1253 . . . [curable adhesive]
2037/1261 . . . [moisture curable]
2037/1269 . . . [multi-component adhesive]
2037/1276 . . . [water-based adhesive]
37/1284 . . . [Application of adhesive]
37/1292 . . . [selectively, e.g. in stripes, in patterns (B32B 37/0076 takes precedence)]
37/14 . characterised by the properties of the layers
37/142 . . . [Laminating of sheets, panels or inserts, e.g. stiffeners, by wrapping in at least one outer layer, or inserting into a preformed pocket]
37/144 . . . [using layers with different mechanical or chemical conditions or properties, e.g. layers with different thermal shrinkage, layers under tension during bonding (constructional features for tensioning B32B 38/1825 takes precedence)]
37/146 . . . [whereby one or more of the layers is a honeycombed structure]
2037/148 . . . [whereby layers material is selected in order to facilitate recycling of the laminate]
37/15 . . . [with at least one layer being manufactured and immediately laminated before reaching its stable state, e.g. in which a layer is extruded and laminated while in semi-molten state]
37/153 . . . [at least one layer is extruded and immediately laminated while in semi-molten state]
37/156 . . . [at least one layer is calendered and immediately laminated]
37/16 . . . with all layers existing as coherent layers before laminating
37/18 . . . involving the assembly of discrete sheets or panels only
37/182 . . . [one or more of the layers being plastic]
37/185 . . . . . . [Laminating sheets, panels or inserts between two discrete plastic layers]
37/187 . . . . . . [the layers being placed in a carrier before going through the lamination process]
37/20 . . . involving the assembly of continuous webs only
37/203 . . . [One or more of the layers being plastic]
37/206 . . . . . . [Laminating a continuous layer between two continuous plastic layers]
37/22 . . . . . . involving the assembly of both discrete and continuous layers
37/223 . . . . . . [One or more of the layers being plastic]
37/226 . . . . . . [Laminating sheets, panels or inserts between two continuous plastic layers]
37/24 . . . . with at least one layer not being coherent before laminating, e.g. made up from granular material sprinkled onto a substrate (B32B 37/15 takes precedence)
2037/243 . . . . [Coating]
2037/246 . . . . [Vapour deposition]
37/26 . . . with at least one layer which influences the bonding during the lamination process, e.g. release layers or pressure equalising layers
2037/262 . . . . [Partition plates or sheets for separating several laminates pressed simultaneously]
2037/264 . . . . [Pressure equalising layers]
2037/266 . . . . [Cushioning layers]
2037/268 . . . . [Release layers]
37/28 . . . involving assembly of non-flat intermediate products which are flattened at a later step, e.g. tubes
37/30 . . . Partial laminating

38/00 Ancillary operations in connection with laminating processes

NOTE

In this group, the following expression is used with the meaning indicated:

• “in connection with laminating processes” means ancillary operations are carried out either
  a. as steps of the laminating processes, or
  b. in line with the lamination processes, just before or immediately after.

38/0004 . . . [Cutting, tearing or severing, e.g. bursting; Cutter details (cutting in general B26D; laminating combined with punching or perforating B32B 38/04; removing all or part of the layers B32B 38/10; cutting in combination with laying up and registration B32B 38/185 takes precedence)]
38/0008 . . . [Electrical discharge treatment, e.g. corona, plasma treatment; wave energy or particle radiation (B32B 38/0036 and B29C 59/00 take precedence)]

NOTE

Laminate treatment is further indexed in group B32B 2310/00

38/0012 . . . [Mechanical treatment, e.g. roughening, deformation, stretching]

NOTE

When classifying in group B32B 38/0012, the treatment can be further classified into indexing codes chosen from B32B 2038/0016-B32B 2038/0028

2038/0016 . . . [Abrading]
2038/002 . . . [Sandblasting]
2038/0024 . . . [Crushing]
2038/0028 . . . [Stretching, elongating]
38/0032 . . . [increasing porosity (B32B 38/04 takes precedence)]
Methods or apparatus for making layered products; Treatment of the layers or of the layered products

38/0036 . . . . (Heat treatment (for heating or cooling of layers during lamination B32B 37/06, B32B 37/08))

NOTE
When classifying in group B32B 38/0036, the heat treatment can be further indexed by using the indexing codes chosen from B32B 38/0036 and subgroups

38/004 . . . . (by physically contacting the layers, e.g. by the use of heated platens or rollers)

2038/0044 . . . . (for creating local stresses)
2038/0048 . . . . (Annealing, relaxing)
2038/0052 . . . . (Other operations not otherwise provided for)
2038/0056 . . . . (Moistening)
2038/006 . . . . (Relieving internal or residual stresses)
2038/0064 . . . . (Smoothing, polishing, making a glossy surface)
2038/0068 . . . . (Changing crystal orientation)
2038/0072 . . . . (Orienting fibers)
2038/0076 . . . . (Curing, vulcanising, cross-linking)
2038/008 . . . . (Sewing, stitching)
2038/0084 . . . . (Foaming)
2038/0088 . . . . (Expanding, swelling)
2038/0092 . . . . (Metallizing)
2038/0096 . . . . (Riveting)
38/04 . . . . Punching, slitting or perforating

NOTE
When classifying in group B32B 38/04, the operation can be further indexed by using the indexing codes chosen from B32B 38/04 and subgroups

2038/042 . . . . (Punching)
2038/045 . . . . (Slitting)
2038/047 . . . . (Perforating)
38/06 . . . . Embossing
38/08 . . . . Impregnating
38/10 . . . . Removing layers, or parts of layers, mechanically or chemically
38/105 . . . . (on edges)
38/12 . . . . Deep-drawing
38/14 . . . . Printing or colouring
38/145 . . . . (Printing)
38/16 . . . . Drying; Softening; Cleaning
38/162 . . . . (Cleaning)
38/164 . . . . (Drying)

NOTE
When classifying in group B32B 38/164, the drying operation can be further indexed by using the indexing codes chosen from B32B 38/164 and subgroups

2038/166 . . . . (Removing moisture)
2038/168 . . . . (Removing solvent)
38/18 . . . . Handling of layers or the laminate
38/1808 . . . . (characterised by the laying up of the layers)
38/1816 . . . . (Cross feeding of one or more of the layers)
38/1825 . . . . (characterised by the control or constructional features of devices for tensioning, stretching or registration)
38/1833 . . . . (Positioning, e.g. registration or centering)
38/1841 . . . . (during laying up)

38/185 . . . . . . (combined with the cutting of one or more layers)
38/1858 . . . . . . (using vacuum)
38/1866 . . . . . . (conforming the layers or laminate to a convex or concave profile)
38/1875 . . . . . . (Tensioning)
38/1883 . . . . . . (Detensioning)
2038/1891 . . . . (Using a robot for handling the layers)

39/00 Layout of apparatus or plants, e.g. modular laminating systems

41/00 Arrangements for controlling or monitoring lamination processes; Safety arrangements
41/02 . . . . Safety arrangements
2041/04 . . . . (Detecting wrong registration, misalignment, deviation, failure)
2041/06 . . . . (Starting the lamination machine or method)

43/00 Operations specially adapted for layered products and not otherwise provided for, e.g. repairing; Apparatus therefor
43/003 . . . . (Cutting)
43/006 . . . . (Delaminating)

Layer arrangements: Coating, impregnation or embedding of layers: Composition of fibres, particles or foam present on a layer; Resin or rubber layer containing a blend of polymers or recycled material

2250/00 Layers arrangement
2250/02 . . . . 2 layers
2250/03 . . . . 3 layers
2250/04 . . . . 4 layers
2250/05 . . . . 5 or more layers
2250/20 . . . . All layers being fibrous or filamentary
2250/22 . . . . All layers being foamed
2250/24 . . . . All layers being polymeric
2250/242 . . . . All polymers belonging to those covered by group B32B 27/32
2250/244 . . . . All polymers belonging to those covered by group B32B 27/36
2250/246 . . . . All polymers belonging to those covered by groups B32B 27/32 and B32B 27/36
2250/248 . . . . All polymers belonging to those covered by group B32B 25/00
2250/26 . . . . All layers being made of paper or paperboard
2250/40 . . . . Symmetrical or sandwich layers, e.g. ABA, ABCBA, ABCBCBA
2250/42 . . . . Alternating layers, e.g. ABAB(C), AABBAABBC(C)
2250/44 . . . . Number of layers variable across the laminate

2255/00 Coating on the layer surface

NOTE
This group is for classification of coatings on a layered product. Specific details of coatings or processes thereof can be found in C08J 7/00, B05D, C09D, C09J, C23C or D06M.

2255/02 . . . . on fibrous or filamentary layer
2255/04 . . . . on a particulate layer
2255/06 . . . . on metal layer
2255/062 . . . . metal layer being a foamed layer
Layer arrangements; Coating, impregnation or embedding of layers; Composition of fibres, particles or foam present...

2260/046 Composition of the impregnated, bonded or embedded layer
2260/045 Impregnation material
2260/044 Water-setting substance, e.g. concrete, plaster
2260/043 Synthetic resin
2260/042 Bituminous or tarry substance
2260/041 Impregnation material

2260/025 Particulate layer (layers of natural mineral fibres or particles being impregnated in a plastic substance B32B 19/02)
2260/024 Organic non-macromolecular coating
2260/023 Metallic coating
2260/022 Polymere coating
2260/021 Coating, impregnation or embedding of layers
2260/020 Inorganic coating
2260/019 Paper layer
2260/018 on paper layer
2260/017 on synthetic resin layer or on natural or synthetic rubber layer
2260/016 on wood layer

2260/00 Impregnation or embedding of a layer; Bonding a fibrous, filamentary or particulate layer by using a binder

2262/02 Composition of fibres which form a fibrous or filamentary layer or are present as additives
2262/021 Fibrous or filamentary layer (layers of natural mineral fibres or particles being impregnated in a plastic substance B32B 19/02)
2262/020 Synthetic macromolecular fibres
2262/019 Cellulosic plastic fibres, e.g. rayon
2262/018 Vegetable fibres
2262/016 Cellulosic fibres, e.g. cotton
2262/015 Thermoplastic elastomer fibres
2262/014 Vinyl resin fibres, e.g. polyvinyl acetate, polyvinyl alcohol polymers or ethylene-vinyl acetate copolymers
2262/013 Polyolefin fibres (vinyl or acrylic copolymers or B32B 2262/0246)
2262/012 Polyolefin particles, e.g. polyethylene or polypropylene homopolymers or ethylene-propylene copolymers
2262/011 Polyolefin fibres
2262/010 Polyamide fibres
2262/009 Polyamide particles
2262/008 Polyamide resin particles
2262/007 Elastomeric fibres
2262/006 Acrylic resin fibres
2262/005 Acrylic resin fibres
2262/004 Vinyl halide, e.g. PVAc, PVDC, PVP, PVDF
2262/003 Vinyl resin, e.g. polyvinyl chloride
2262/002 Aromatic vinyl resin, e.g. styrenic (co)polymers
2262/001 Aromatic vinyl resin
2262/000 Synthetic macromolecular fibres

2264/00 Composition or properties of particles which form a particulate layer or are present as additives
2264/02 Synthetic macromolecular particles
2264/017 Polyurethane fibres
2264/016 Polyurethane particles
2264/015 Polyurethane resin particles
2264/014 Polyethylene terephthalate resin particles
2264/013 Polyamide resin particles
2264/012 Polyamide fibres
2264/011 Polyamide resin
2264/010 Polyamide
2264/009 Polyethylene particles
2264/008 Polyethylene resin particles
2264/007 Cellulosic particles, e.g. rayon
2264/006 Cellulose fibres
2264/005 Cellulose fibres, e.g. cotton
2264/004 Cellulosic plastic fibres, e.g. rayon
2264/003 Cellulosic particles
2264/002 Synthetic macromolecular fibres
2264/001 Cellulosic fibre
2264/000 Synthetic macromolecular fibres
Properties of the layers or laminate

2266/00 Composition of foam
2266/02 Organic
2266/0207 Materials belonging to B32B 25/00
2266/0214 Materials belonging to B32B 27/00
2266/0221 Aromatic vinyl resin, e.g. styrenic (co)polymers
2266/0228 Vinyl halide, e.g. PVC, PVDC, PVF, PVDF
2266/0242 Acrylic resin
2266/025 Polyolefin (vinyl or acrylic copolymers B32B 2266/0221, B32B 2266/0242)
2266/0257 Polyamide
2266/0264 Polyester
2266/0271 epoxy resin
2266/0278 Polyurethane
2266/0285 Condensation resins of aldehydes, e.g. with phenols, ureas, melamines
2266/0292 Thermoplastic elastomer
2266/031 Bituminous or tarry material
2266/04 Inorganic
2266/045 Metal
2266/049 Water-setting material, e.g. concrete, plaster or asbestos cement
2266/053 Mineral element, e.g. asbestos or mica
2266/057 Silicon-containing material, e.g. glass
2266/06 Open cell foam
2266/08 Closed cell foam
2266/10 characterised by the foam pores
2266/102 Nanopores, i.e. with average diameter smaller than 0.1 µm

Condition, form or state of the layers or laminate

2305/00 Cellular or porous
2305/02 Foam
2305/024 Honeycomb
2305/026 Porous
2305/028 Hollow fillers; Syntactic material
2305/07 Parts immersed or impregnated in a matrix
2305/073 partially
2305/076 Prepregs
2305/08 Reinforcements
2305/10 Fibres of continuous length
2305/18 Fabrics, textiles
2305/182 knitted
2305/184 Braided fabrics
2305/186 Knitted fabrics
2305/188 Woven fabrics
2305/20 in the form of a non-woven mat
2305/22 Fibres of short length
2305/24 Whiskers
2305/28 in the form of a mat
2305/30 Fillers, e.g. particles, powders, beads, flakes, spheres, chips
2305/34 Inserts
2305/342 Chips
2305/345 Heating elements
2305/347 Security elements
2305/38 Meshes, lattices or nets
2305/54 Filled microcapsules
2305/55 Liquid crystals
2305/70 Scrap or recycled material
2305/72 Cured, e.g. vulcanised, cross-linked
2305/74 Partially cured
2305/77 Uncured, e.g. green
2305/80 Sintered

Condition, form, state or properties of the layers or laminate

2307/00 Properties of the layers or laminate
2307/10 having particular acoustical properties
Condition, form, state or properties of the layers or laminate

- Insulating
- having particular electrical or magnetic properties, e.g. piezoelectric
- Conductive
- Di-electric
- Insulating
- Magnetic, paramagnetic
- Anti-static
- Electromagnetic interference shielding
- having particular thermal properties
- Resistive to light or to UV
- having particular optical properties (light or UV resistant B32B)
- Flame resistant or retardant, fire resistant or retardant
- Heat stability (dimensional stability B32B 2307/734)
- Heat sealable
- having particular optical properties (light or UV resistant B32B)
- Coloured
- on the layer surface, e.g. ink
- within the layer by addition of a colorant, e.g. pigments, dyes
- Multi-coloured
- Bright, glossy, shiny surface
- Matt, dull surface
- Iridescent, pearlescent surface
- Opake
- Transparent
- Translucent
- Reflective
- Refractive
- Polarizing, birefringent, filtering
- Luminescent, fluorescent, phosphorescent
- having particular mechanical properties
- Elastic
- Oriented
- mono-axially
- bi-axially
- multi-axially
- Hardness
- Roughness
- Yield strength; Tensile strength
- Shear surface
- Torsion strength; Torsion stiffness
- Flexural strength; Flexion stiffness
- Creep
- Fatigue strength
- Wear resistance
- Impact strength, toughness
- Damping, energy absorption
- Cutability
- Resistant to cut
- Tearability
- Tear resistant
- Scratch resistance
- Other properties
- Amorphous
- Crystalline
- Anisotropic
- Isotropic
- Resistant to heat
- Damping, energy absorption
- Impact strength, toughness
- Wear resistance
- Fatigue strength
- Flexural strength; Flexion stiffness
- Torsion strength; Torsion stiffness
- Shear strength
- Roughness
- Hardness
- Dimensional properties
- Dimensional stability
- Shrinkable
- Thermofomability
- Oxygen absorber
- Non-slip, anti-slip
- Slipping, anti-blocking, low friction
- Releasability
- Printability
- Corrosion inhibitor
- Self-cleaning
- Refurbishable, i.e. marks or scratches can be removed
- Odour absorbent
- Self-repairing, self-healing
- Insect repellent
- Odour barrier
- Permeability to liquids, absorption
- Non-permeable
- Hydrophilic
- Hydrophobic
- Dimensional properties
- Dimensional stability
- Refurbishable, i.e. marks or scratches can be removed
- Odour absorbent
- Self-repairing, self-healing
- Insect repellent
- Degradable
- Biodegradable
- Water-soluble, water-dispersible
- Weight, e.g. weight per square meter
- Density
- Non-uniform density
- Permeability to gases, adsorption
- Non-permeable
- Oxygen barrier
- Water vapor barrier

- Parameters for the laminating or treatment process; Apparatus details
- Temperature
- Temperature vs pressure profiles
- Temperature vs time profiles
- Ambient temperature
- Time
- Angles
- Dimensions, e.g. volume
- linear, e.g. length, distance, width
- Thickness
- Pressure
- Pressure vs time profiles
- Velocity, e.g. feed speeds
- Tension
- In a particular environment
- Inert
- Sterile
- Dust free, e.g. clean room
- Fluid other than air
- Vacuum
- Automated, e.g. using a computer or microcomputer

Automated, e.g. using a computer or microcomputer
Operating procedures: Apparatus details

2310/00 Treatment by energy or chemical effects

2310/021 using electrical effects (B32B 2310/08 and B32B 2310/12 take precedence)

2310/022 Electrical resistance

2310/024 Peltier effect

2310/025 Electrostatic charges

2310/027 using friction

2310/028 using vibration, e.g. sonic or ultrasonic

2310/04 using liquids, gas or steam

2310/0409 using liquids

2310/0418 other than water

2310/0427 Liquefied gases

2310/0436 Oil

2310/0445 using gas or flames (B32B 2310/0427 takes precedence)

2310/0454 Hot air

2310/0463 other than air

2310/0472 inert gas

2310/0481 Ozone

2310/049 using steam or damp

2310/08 by wave energy or particle radiation

2310/0806 using electromagnetic radiation

2310/0812 using induction

2310/0818 using eddy currents

2310/0825 using IR radiation

2310/0831 using UV radiation

2310/0837 using actinic light

2310/0843 using laser

2310/085 using X-ray

2310/0856 using gamma-ray

2310/0862 using microwave

2310/0868 using radio frequency

2310/0875 using particle radiation

2310/0881 using ion-radiation, e.g. alpha-rays

2310/0887 using electron radiation, e.g. beta-rays

2310/0893 using neutron radiation

2310/12 using dielectric properties

2310/14 Corona, ionisation, electrical discharge, plasma treatment

2311/00 Metals, their alloys or their compounds

NOTE

Alloys and compounds of specific metals are indexed with the same indexing code as the specific metals

2311/005 Shape memory alloys

2311/02 Noble metals

2311/04 Gold

2311/06 Platinum

2311/08 Silver

2311/09 Palladium

2311/10 Mercury

2311/12 Copper

2311/14 Lead

2311/16 Tin

Inorganic materials used for the layers, laminate or apparatus components

2313/00 Elements other than metals

2313/02 Boron

2313/04 Carbon

2315/00 Other materials containing non-metallic inorganic compounds not provided for in groups B32B 2311/00 - B32B 2313/04

2315/02 Ceramics

2315/06 Concrete

2315/08 Glass

2315/085 Glass fiber cloth or fabric

2315/10 Mica

2315/12 Asbestos

2315/14 Mineral wool

2315/16 Clay

2315/18 Plaster

2317/00 Animal or vegetable based

2317/02 Cork

2317/04 Linoleum

2317/06 Bone; Horn; Ivory

2317/08 Natural leather

2317/10 Natural fibres, e.g. wool, cotton

2317/12 Paper, e.g. cardboard

2317/122 Kraft paper

2317/125 impregnated with thermosetting resin

2317/127 Corrugated cardboard

2317/16 Wood, e.g. woodboard, fibreboard, woodchips

2317/18 Cellulose, modified cellulose or cellulose derivatives, e.g. viscose (B32B 2317/10, B32B 2317/12, B32B 2317/16 take precedence)

2317/20 Starch

2317/22 Natural rubber (synthetic rubber B32B 2319/00)

2317/24 Oil (B32B 2318/02 takes precedence)

Other natural products or their composites used for the layers, laminate or apparatus components not provided for in groups B32B 2311/00 - B32B 2315/12 and B32B 2319/00 - B32B 2398/20

2318/00 Mineral based

2318/02 Oil

2318/04 Stone

2319/00 Synthetic rubber (natural rubber B32B 2317/22)

Organic materials used for the layers, laminate or apparatus components

2323/00 Polyalkenes

2323/04 Polyethylene

2323/043 HDPE, i.e. high density polyethylene

2323/046 LDPE, i.e. low density polyethylene

2323/10 Polypropylene
Organic materials used for the layers, laminate or apparatus components

2323/16  EPDM, i.e. ethylene propylene diene monomer
2325/00  Polymers of vinyl-aromatic compounds, e.g. polystyrene
2327/00  Polyvinylhalogenides
2327/06  PVC, i.e. polychloroethylene
2327/12  containing fluorine
2327/18  . . PTFE, i.e. polytetrafluoroethylene
2329/00  Polyvinylalcohols, polyvinylethers, polyvinylaldehydes, polyvinylketones or polyvinylketals
2329/04  Polyvinylalcohol
2329/06  PVB, i.e. polyvinylbutyral
2331/00  Polyvinylesters
2331/04  Polymers of vinyl acetate, e.g. PVA
2333/00  Polymers of unsaturated acids or derivatives thereof
2333/04  . . Polymers of esters
2333/08  . . . Polymers of acrylic acid esters, e.g. PMA, i.e. polymethacrylate
2333/12  . . . Polymers of methacrylic acid esters, e.g. PMMA, i.e. polymethylmethacrylate
2355/00  Specific polymers obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in a single one of index codes B32B 2323/00 - B32B 2333/00
2355/02  . ABS polymers, i.e. acrylonitrile-butadiene-styrene polymers
2361/00  Phenoplast, aminoplast
2363/00  Epoxy resins
2367/00  Polyster, e.g. PET, i.e. polyethylene terephthalate
2369/00  Polycarbonates
2371/00  Polymers, e.g. PEEK, i.e. polyether-etherketone; PEK, i.e. polyetherketone
2375/00  Polyureas; Polyurethanes
2377/00  Polymides
2379/00  Other polymers having nitrogen, with or without oxygen or carbon only, in the main chain
2379/08  . . Polymides
2383/00  Polysiloxanes
2386/00  Specific polymers obtained by polycondensation or polyaddition not provided for in a single one of index codes B32B 2363/00 - B32B 2383/00
2391/00  Waxes
2395/00  Bituminous material, e.g. tar, asphalt
2398/00  Unspecified macromolecular compounds
2398/10  . Thermosetting resins
2398/20  . Thermoplastics

Particular articles

NOTE

Parts of specific articles are indexed with the same indexing codes as the articles

2405/00  Adhesive articles, e.g. adhesive tapes (labels B32B 2519/00)
2410/00  Agriculture-related articles
2413/00  Belts (conveyor belts B32B 2333/02; drive belts B32B 2333/04)
2419/00  Buildings or parts thereof (walls, panels B32B 2607/00)
2419/02  . Bricks
2419/04  . Tiles for floors or walls (tiles for roofs B32B 2419/06)
2419/06  . Roofs, roof membranes
2425/00  Cards, e.g. identity cards, credit cards
2429/00  Carriers for sound or information
2429/02  . Records or discs
2432/00  Cleaning articles, e.g. mops, wipes (personal care B32B 2555/00)
2433/00  Closed loop articles
2433/02  . Conveyor belts
2433/04  . Driving belts
2435/00  Closures, end caps, stoppers
2435/02  . for containers
2437/00  Clothing (anti-ballistic clothing B32B 2571/02)
2437/02  . Gloves, shoes
2437/04  . Caps, helmets
2439/00  Containers; Receptacles (closures therefor B32B 2435/00)
2439/02  . Open containers
2439/06  . . Bags, sacks, sachets
2439/40  . . Closed containers
2439/46  . . Bags
2439/60  . . Bottles
2439/62  . . Boxes, cartons, cases
2439/66  . . Cans, tins
2439/70  . . Food packaging
2439/80  . . Medical packaging
2451/00  Decorative or ornamental articles (wall paper B32B 2607/02)
2457/00  Electrical equipment
2457/04  . Insulators
2457/08  . PCBs, i.e. printed circuit boards
2457/10  . Batteries
2457/12  . Photovoltaic modules
2457/14  . Semiconductor wafers
2457/16  . Capacitors
2457/18  . Fuel cells
2457/20  . Displays, e.g. liquid crystal displays, plasma displays
2457/202  . . LCD, i.e. liquid crystal displays
2457/204  . . Plasma displays
2457/206  . . Organic displays, e.g. OLED
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<th>CPC Class</th>
<th>Description</th>
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<td>B32B</td>
<td>Particular articles</td>
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<td>Touch screens</td>
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<td>2459/00</td>
<td>Nets, e.g. camouflage nets</td>
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<td>2471/00</td>
<td>Floor coverings (B32B 2419/04 takes precedence)</td>
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<td>2471/02</td>
<td>Carpets</td>
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<td>Frictional elements</td>
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<td>2479/00</td>
<td>Furniture (upholstery B32B 2601/00)</td>
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<td>2509/00</td>
<td>Household appliances</td>
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<td>2509/10</td>
<td>Refrigerators or refrigerating equipment</td>
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<td>2519/00</td>
<td>Labels, badges</td>
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<td>2519/02</td>
<td>RFID tags</td>
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<td>2535/00</td>
<td>Medical equipment, e.g. bandage, prostheses, catheter (medical patches B32B 2556/00)</td>
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<td>2551/00</td>
<td>Optical elements</td>
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<td>2551/08</td>
<td>Mirrors</td>
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<td>2553/00</td>
<td>Packaging equipment or accessories not otherwise provided for</td>
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<td>2553/02</td>
<td>Shock absorbing</td>
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<td>2553/023</td>
<td>for use in loose form, e.g. dunnage</td>
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<td>2553/026</td>
<td>Bubble films</td>
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<td>2554/00</td>
<td>Paper of special types, e.g. banknotes</td>
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<td>2555/00</td>
<td>Personal care</td>
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<td>2555/02</td>
<td>Diapers or napkins</td>
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<td>2556/00</td>
<td>Patches, e.g. medical patches, repair patches</td>
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<tr>
<td>2559/00</td>
<td>Photographic equipment or accessories</td>
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<tr>
<td>2571/00</td>
<td>Protective equipment</td>
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<td>2571/02</td>
<td>defensive, e.g. armour plates, anti-ballistic clothing (camouflage nets B32B 2459/00)</td>
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<tr>
<td>2581/00</td>
<td>Seals; Sealing equipment; Gaskets</td>
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<td>2590/00</td>
<td>Signboards, advertising panels, road signs</td>
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<tr>
<td>2597/00</td>
<td>Tubular articles, e.g. hoses, pipes</td>
</tr>
<tr>
<td>2601/00</td>
<td>Upholstery</td>
</tr>
<tr>
<td>2603/00</td>
<td>Vanes, blades, propellers, rotors with blades</td>
</tr>
<tr>
<td>2605/00</td>
<td>Vehicles</td>
</tr>
<tr>
<td>2605/003</td>
<td>Interior finishings</td>
</tr>
<tr>
<td>2605/006</td>
<td>Transparent parts made from plastic material, e.g. windows</td>
</tr>
<tr>
<td>2605/08</td>
<td>Cars</td>
</tr>
<tr>
<td>2605/10</td>
<td>Trains</td>
</tr>
<tr>
<td>2605/12</td>
<td>Ships</td>
</tr>
<tr>
<td>2605/16</td>
<td>Submarines</td>
</tr>
<tr>
<td>2605/18</td>
<td>Aircraft (blades, propellers B32B 2603/00)</td>
</tr>
<tr>
<td>2607/00</td>
<td>Walls, panels</td>
</tr>
<tr>
<td>2607/02</td>
<td>Wall papers, wall coverings</td>
</tr>
</tbody>
</table>