

B32B

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

Definition statement

This subclass/group covers:

- Layered products characterised by the structure or materials of the layers, including products formed from separate layers, wherein the layers lose their individuality in the final product, e.g. products formed from a plurality of fabrics which are compressed into a unitary mat, or consolidated into a single layer after impregnation with a resin.
- Methods or apparatus for making layered products; methods or apparatus for treating layers or layered products either preliminary to or subsequent to their manufacture, when the treatment is in connection with said manufacture.

Relationship between large subject matter areas

Classification of layered products is provided for in many technical areas, 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, any layered products that specify relevant useful information are classified in this subclass even though it may also be classified in other classes.

However, 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, [B29C](#), [B44D](#), [C08J](#), [C09J](#) or 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.
- Adhesive tape, film or sheet comprising a single layer substrate, an adhesive coating not constituting a layer (see glossary of terms below), and a single layer liner or sheet.
- Products belonging to [A61F 13/00](#) or [G02B](#) if the products are fully classifiable in these fields.

References relevant to classification in this subclass

This subclass/group does not cover:

Etched metallic pattern on the surface of a printed circuit board	H05K 1/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Wearing apparel	A41
Outerwear, protective garments	A41D
Headwear	A42B
Footwear	A43B
Furniture; Domestic articles or appliances	A47
Household or table equipment	A47G
Floor fabrics	A47G 27/00
Implements for cleaning, e.g. cloths, pads, sponges, mops	A47L 13/00
Surgery, e.g. instruments or drapes	A61B
Diapers and absorbent articles	A61F 13/00
Containers for medical purposes	A61J 1/00
Chemical aspects of bandages, dressings, absorbent pads or surgical articles	A61L 15/00
Sport articles	A63B , A63C
Separation filters	B01D
Processes for applying liquids or other fluent materials to surfaces	B05D
Working or preserving wood	B27

Manufacturing articles made of fibres or particles of wood	B27N
Working cement, clay or stone	B28
Shaping or joining of plastics	B29C
Producing particular articles from plastic	B29D
Mechanical working or deformation of paper or cardboard	B31F
Printing, marking or copying	B41M
Printed matter of special format, e.g. cards, banknotes or identity cards	B42D 15/00
Decorative products	B44C
Fuel tanks	B60K 15/00
Vehicle fittings, vehicle parts	B60R
Ships or other waterborne vessels	B63B
Airplane fuselage or wings	B64C 1/00 , B64C 3/00
Containers; Packages	B65D
Surface treatment of glass, e.g. coating	C03C
Cement compositions; Ceramics	C04B
Joining ceramic layers with other ceramic layers or layers of other materials by heating	C04B 37/00
Manufacture of polymeric films or sheets	C08J 5/00
Coating of polymeric articles	C08J 7/00
Production of macromolecular porous or cellular articles	C08J 9/00

Compositions of macromolecular compounds	C08L
Coating compositions	C09D
Adhesive processes	C09J 5/00
Adhesive tapes, films or sheets	C09J 7/00
Fireproofing materials	C09K 21/00
Coatings on or with metals	C23C
Electrolytic deposition of metals	C25D
Woven materials	D03D
Non-woven materials	D04H
Polymeric coatings on fibrous web	D06N
Treatment of fabrics	D06M
Impregnation or coating of paper; special paper	D21H
General building structures; insulation or protection	E04B
Structural elements; building materials	E04C
Roof coverings	E04D
Wall coverings	E04F 13/00
Floor coverings	E04F 15/00
Rigid pipes	F16L 9/00
Hoses or flexible pipes	F16L 11/00
Thermal insulation	F16L 59/00
Vibration damping, springs	F16F

Optical elements	G02B
Labels or advertisements	G09F
Digital marking record carriers, e.g. credit cards	G06K 19/00
Sound insulation	G10K 11/00
Magnetic recording	G11B 5/00
Optical recording	G11B 7/00
Batteries, e.g. separators	H01M
Printed circuits	H05K

Special rules of classification within this subclass

- IPC groups not used

The following IPC are not used in the internal ECLA classification scheme. Subject-matter covered by these groups is classified in the following ECLA groups:

- [B32B 1/04](#) covered by [B32B 3/02-B32B 3/30](#),
- [B32B 1/06](#) covered by [B32B 3/02-B32B 3/085](#) or [B32B 5/02](#),
- [B32B 3/22](#) covered by [B32B 3/08-B32B 3/085](#) or [B32B 5/02](#),
- [B32B 3/24](#) covered by [B32B 3/266](#),
- [B32B 5/28](#) covered by [B32B 2260/021-B32B 2260/023](#),
- [B32B 17/02](#) covered by [B32B 2262/101](#),
- [B32B 17/04](#) covered by [B32B 2262/101](#) or [32B260/04](#),
- [B32B 17/12](#) covered by [B32B 17/067](#),
- [B32B 23/02](#) covered by [B32B 2262/04](#) and [B32B 5/02- B32B 5/12](#),
- [B32B 27/02](#) covered by [B32B 2262/02- B32B 2262/0292](#) and [B32B 5/02- B32B 5/12](#),
- [B32B 27/04](#) covered by [B32B 2260/04](#).

- Priority rules

"First place rule", as indicated in the IPC, is used in the following groups [B32B 9/04](#), [B32B 11/04](#), [B32B 13/04](#), [B32B 15/04](#), [B32B 19/04](#), [B32B 21/04](#), [B32B 23/046](#)-[B32B 23/12](#), [B32B 25/04](#), [B32B 27/06](#), [B32B 29/002](#). However, when these groups are not characterised by the specific material adjacency to be classified, then, multiple classification is given, e.g. a layered product having a stone layer next to a bituminous layer would be classified in [B32B 9/04](#) and in [B32B 11/04](#).

For a cellulosic plastic layer next to a metal layer or to a wood layer [B32B 23/042](#) or [B32B 23/044](#), respectively, take precedence, i.e. first rule does not apply.

For layered products comprising at least two ceramic layers and at least one layer of another material classification is given in [B32B 18/00](#) and, if necessary, also in [B32B 9/04](#). For products made exclusively of ceramic layers, [B32B 18/00](#) takes precedence.

For products comprising at least one glass layer, [B32B 17/00](#) takes precedence over the above mentioned adjacency groups.

- In the groups [B32B 15/01](#)-[B32B 15/018](#), the last place rule is followed (classification in the last appropriate place) combined with multiple classifications.

- For the rest of groups in [B32B](#) common rule applies.

- If the invention is characterised by several aspects, i.e. surface structure and/or material of the layer(s) or production method, several classification symbols are given.

- Layers with mixtures of essential materials covered by two or more subgroups are classified in each appropriate subgroup.

- When layer materials are too generally defined or too many possibilities are disclosed, then classes corresponding to the materials indicated in the examples are allocated. In the absence of examples, the pertinent more general main groups or subgroups are allocated.

- If a layered product is characterised by the way it is produced and not by its structure or composition, the production method should be classified in groups [B32B 37/00](#) or [B32B 38/00](#), or in other subclasses, e.g. [B29C](#), for example in groups [B29C 45/16](#) or [B29C 47/06](#)

- Coating operations are classified in [B32B 2037/243](#) as long as a lamination process as defined in [B32B 37/00](#) is present.

- Indexing codes

The following Indexing Codes are used in this subclass:

a) [B32B 2250/00](#) - [B32B 2274/00](#), which are used in connection with [B32B](#)

[1/00](#) - [B32B 15/00](#) (with the exception of [B32B 15/01](#)), [B32B 17/00](#) and [B32B 19/00](#) - [B32B 29/00](#);

b) [B32B 37/00](#) - [B32B 43/00](#), [B32B 2305/00](#) and [B32B 2309/00](#) - [B32B 2398/00](#), which are used in connection with [B32B 17/00](#) and [B32B 33/00](#) - [B32B 43/00](#);

c) [B32B 2307/00](#) (properties) and [B32B 2405/00](#) to [B32B 2607/00](#) (particular articles), which are used in connection with the whole subclass [B32B](#) with the exception of [B32B 15/01](#) and [B32B 18/00](#).

Indexing Codes mentioned in a) and c) are mandatory to classify technical information belonging to the core of the invention and optional for the classification of additional information.

Concerning Indexing Codes mentioned in b):

ECLA reform applies to [B32B 37/00](#)-[B32B 43/00](#).

[B32B 2305/00](#) and [B32B 2309/00](#) - [B32B 2398/00](#) are given as additional information, they are not mandatory but desirable.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Fibrous layer	Random assembly of fibres or filaments, usually of limited length, e.g. felt or fleece, the fibres being interengaged or connected, e.g. by adhesive.
Filamentary layer	Layer of threads, filaments, tapes or ribbons of any substance (excluding wires) of more or less unlimited length secured together; it may be e.g. woven, knitted, braided, netted, spunbonded, or formed of threads crossed or laid side by side and bonded together.
Layer	Sheet, strip or stratum having a small thickness relative to its other dimensions. It may be deformed out of the flat plane to form a three-dimensional shape; 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

	<p>grating or a honeycomb. It may or may not be in complete contact with the next layer, e.g. a corrugated layer against a flat layer. The layer has to have one of the forms defined hereunder: 1 Preformed layer, i.e. taking the form of a layer at some stage before being brought into combination with another layer. They include: a) coherent solid layers including honeycombs or similar layer of regularly arranged cells; b) non-coherent solid layers consisting of assemblies of strands, strips, tiles or like elements, which are juxtaposed side-by-side; c) fleeces or fabrics (including spaced fabrics) ; d) preformed paper webs; e) doughs which are cast onto a plate to form a solid sheet when set (including set mortars, cements and concretes); f) self supporting pre-moulded layers, e.g. pre-extruded, pre-cast; g) transfer coatings, i.e. self supporting coatings formed on a temporary support for subsequent transfer to a layer. 2 Layer formed in-situ, i.e. taking the form of a layer after being brought into combination with another layer. They include: a) layer formed by casting, extrusion or moulding (e.g. injection, rotational process) of a melt material; b) by assembling strands, strips, tiles or like elements juxtaposed side-by-side onto a pre-formed layer; c) fleeces and fabrics formed onto a pre-formed layer and bonded or impregnated into a cohesive sheet, e.g. spunbonded fabric; d) mortars, cements and concrete layers formed onto a preformed layer. In B32B, with the exception of B32B 15/01-B32B 15/018 , the following are excluded from the definition of a layer: a) A coating formed directly onto a substrate layer, which at the moment of its contact with the substrate does not have the form of a layer (unless it comes within one of the sub-sections of definition 2 above). Coatings may</p>
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	<p>be obtained by e.g.: - brushing, flowing, spraying, dipping or doctor blading a solution or dispersion; - deposition of loose particles, e.g. by sprinkling; - flocking - sputtering, vapour/plasma/vacuum depositing. b) A layer laid down as a wet slurry as in paper making or as in successive deposits of material in a mould so that the resultant product forms a homogeneous single layer.</p>
Layered product	<p>Product comprising at least perposed layers secured together ; the term "secured" is to be interpreted broadly to include any method of uniting or securing the layers, e.g. needling, stitching, gluing, nailing, dovetailing, welding or the interposition of an adhesive or adhesive-impregnated support. Products wherein layers are obtained by co-extrusion or by simultaneous injection moulding of materials are included in this definition. It also encompasses two layers of ceramic powders that are pressed together in a press. 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. It is normally of substantially uniform thickness overall, i.e. ignoring local variations such as are produced by a corrugated face layer. May be in the form of an article, e.g., a container.</p>
Next to	With no other layer being interposed
Particulate layer	<p>Preformed layer of particles, e.g. chips, powder, granules, flakes, in which the particles are bonded together, e.g. sintered or by a binder.</p>

Synonyms and Keywords

In patent documents the following abbreviations are often used:

Synthetic rubber	Thermosetting synthetic rubber
Layer of particles	"Layer formed of particles" or "layer made of particles"
Layer of fibres	"Layer formed of fibres" or "layer made of fibres"

B32B 1/00

Layered products having a general shape other than plane

Definition statement

This subclass/group covers:

Layered products having a general shape other than plane and being in the form of a receptacle or of a tubular product.

Special rules of classification within this group

The groups [B32B 1/04](#), [B32B 1/06](#) and [B32B 1/10](#) contain documents published before 2006 and are no longer used for the classification of documents after this date.

B32B 1/02

Receptacles, e.g. tanks

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fuel tanks	B60K 15/00
Containers; Packages	B65D

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Receptacle	Rigid container
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B32B 1/08

Tubular products

Informative references

Attention is drawn to the following places, which may be of interest for search:

Rigid pipes	F16L 9/00
Hoses; Flexible pipes	F16L 11/00

Synonyms and Keywords

Tubular product	Tube, pipe or hose
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B32B 3/00

Layered products comprising a layer with external or internal discontinuities or unevennesses, or a layer of non-planar form [N: (fibrous or filamentary layers B32B5/02; particulate layers B32B5/16; foamed layers B32B5/18); Layered products having particular features of form (receptacles or tubular products B32B1/00)]

Special rules of classification within this group

[B32B 3/22](#) and [B32B 3/24](#) contain documents published before 2006 and are no longer used for the classification of documents after this date.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Juxtaposed side-by-side	In direct contact or with a bonding material, e.g. adhesive or mortar, in between
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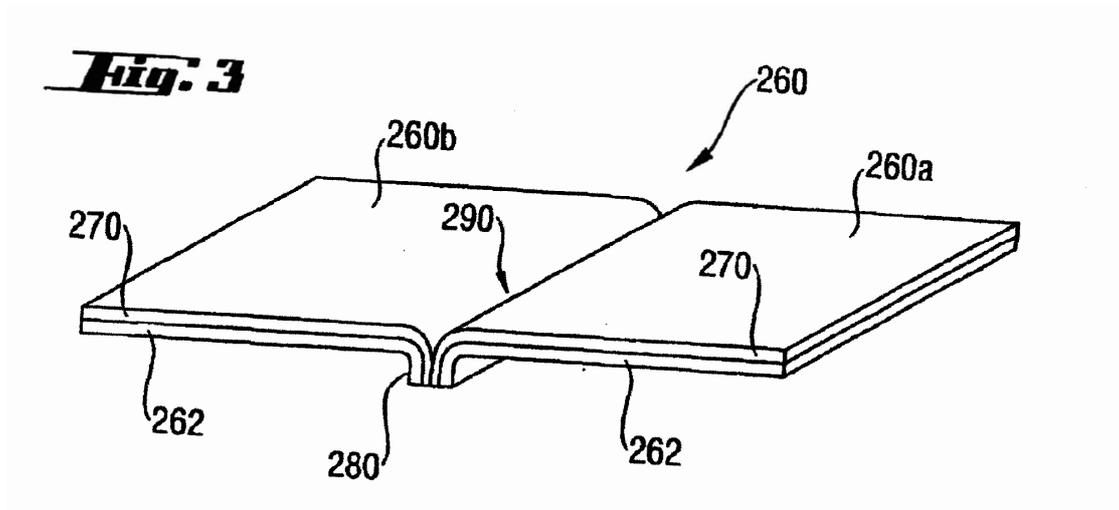
B32B 3/02

characterised by features of form at particular places, e.g. in edge regions [N: (non-uniform thickness B32B3/263)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:

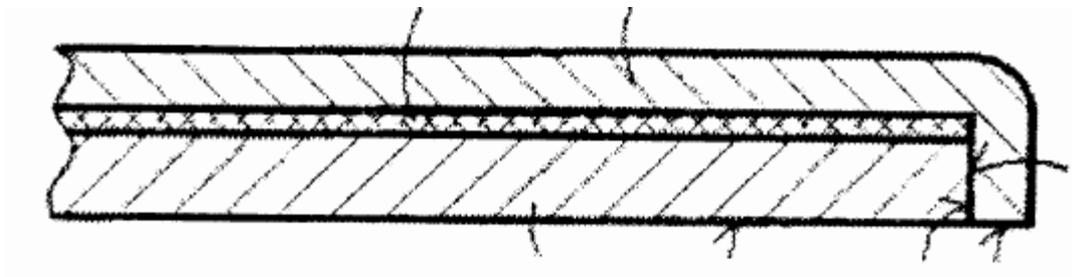


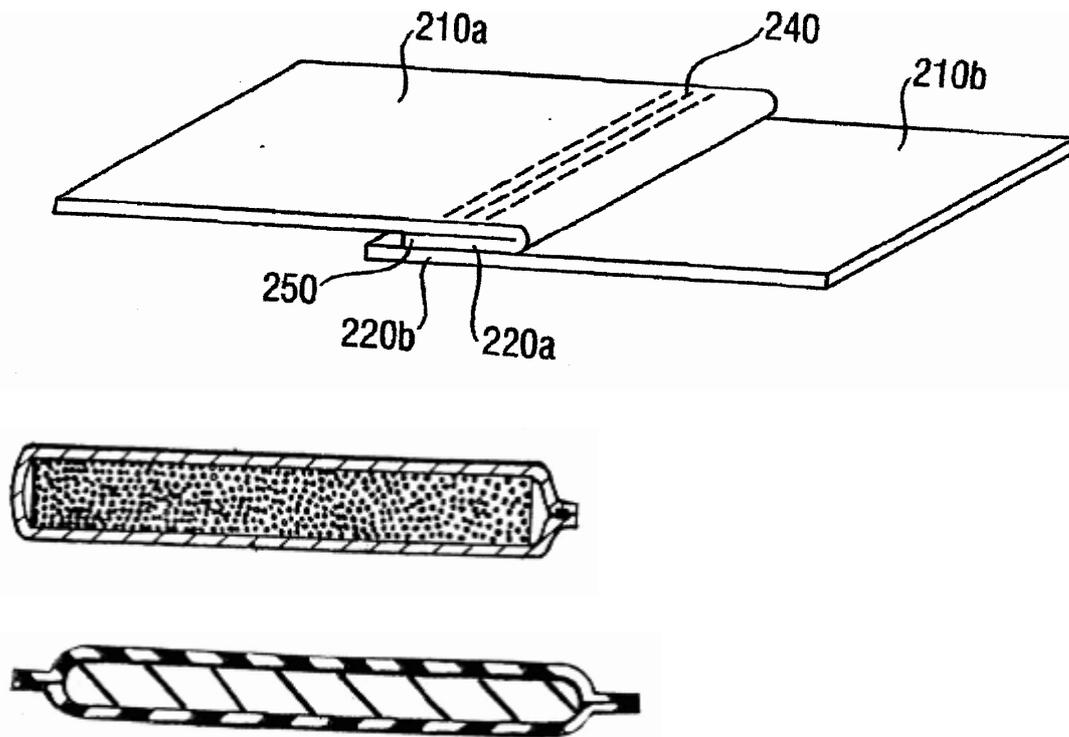
B32B 3/04

characterised by [N: at least one layer folded at the edge, e.g. over another layer; characterised by at least one layer enveloping or enclosing a material]

Definition statement

This subclass/group covers:



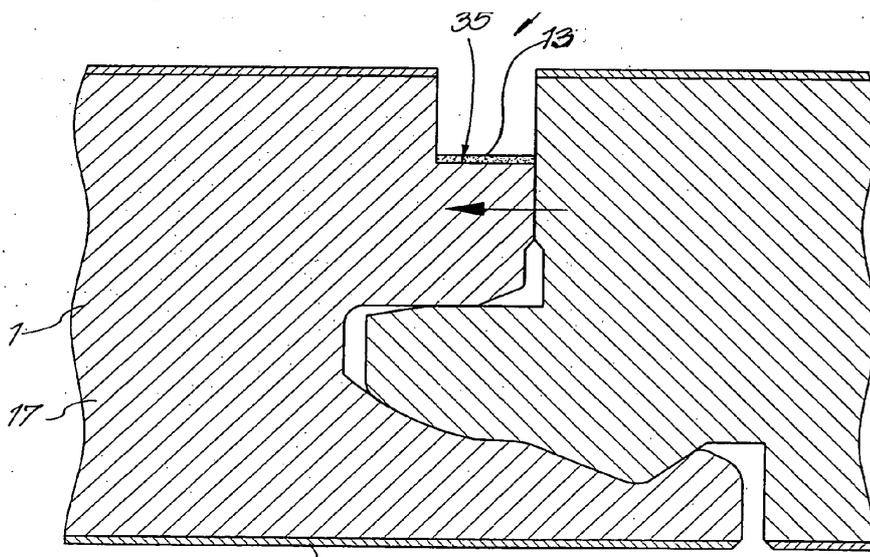


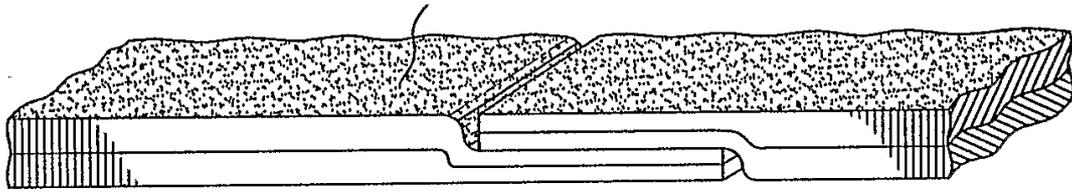
B32B 3/06

for securing layers together; for attaching the product to another member, e.g. to a support [N:; or to another product, e.g. groove/tongue, interlocking]

Definition statement

This subclass/group covers:



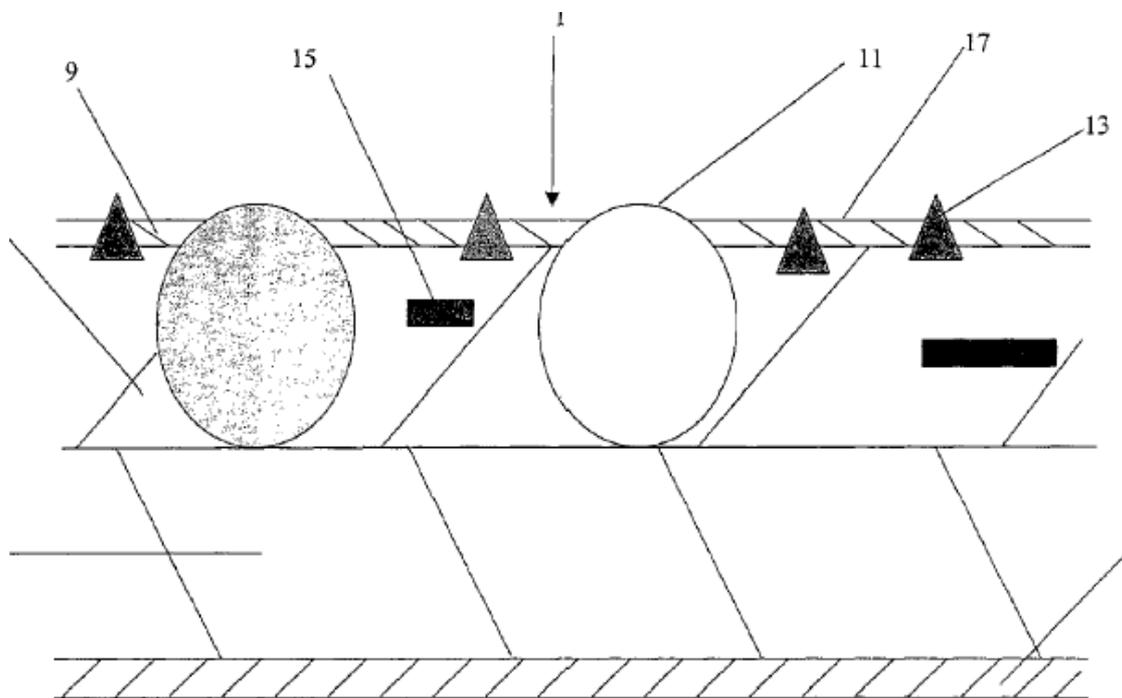


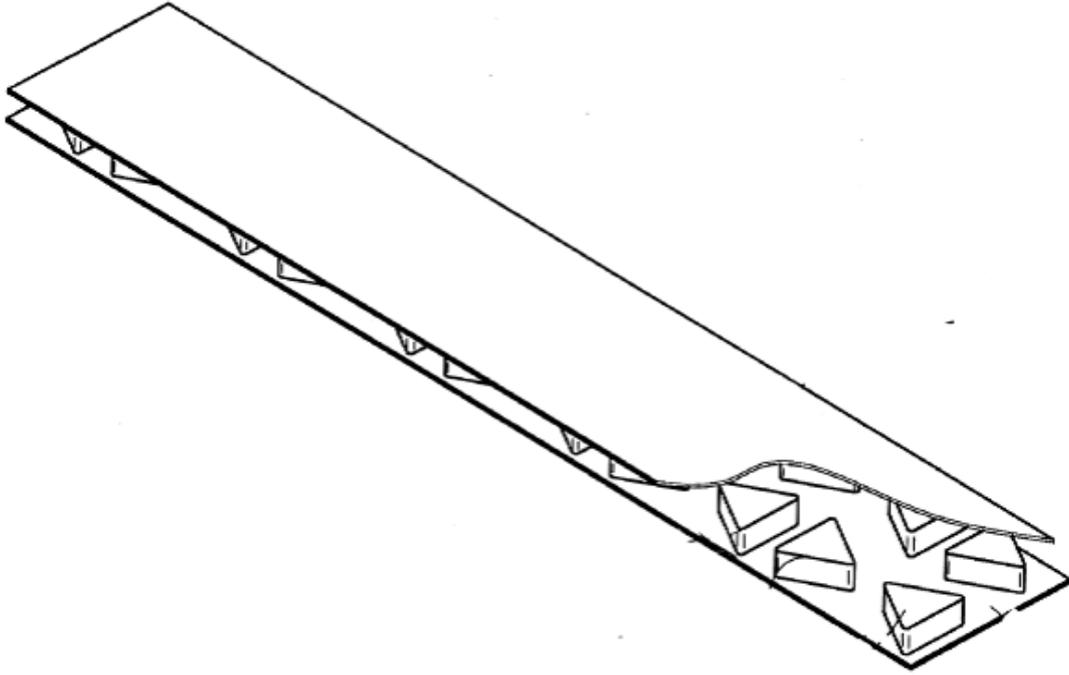
B32B 3/085

[N: spaced apart pieces present on the surface of a layer]

Definition statement

This subclass/group covers:





References relevant to classification in this group

This subclass/group does not cover:

Products characterised by a layer formed by regularly laid parallel cords or filaments, which may be bunched, flat or slightly separated	B32B 5/02
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B32B 3/10

characterised by a discontinuous layer, i.e. formed of separate pieces of material

References relevant to classification in this group

This subclass/group does not cover:

Products characterised by having added members at particular parts	B32B 3/08
Products characterised by a layer formed by regularly laid parallel cords or filaments, which may be bunched, flat or slightly separated	B32B 5/02

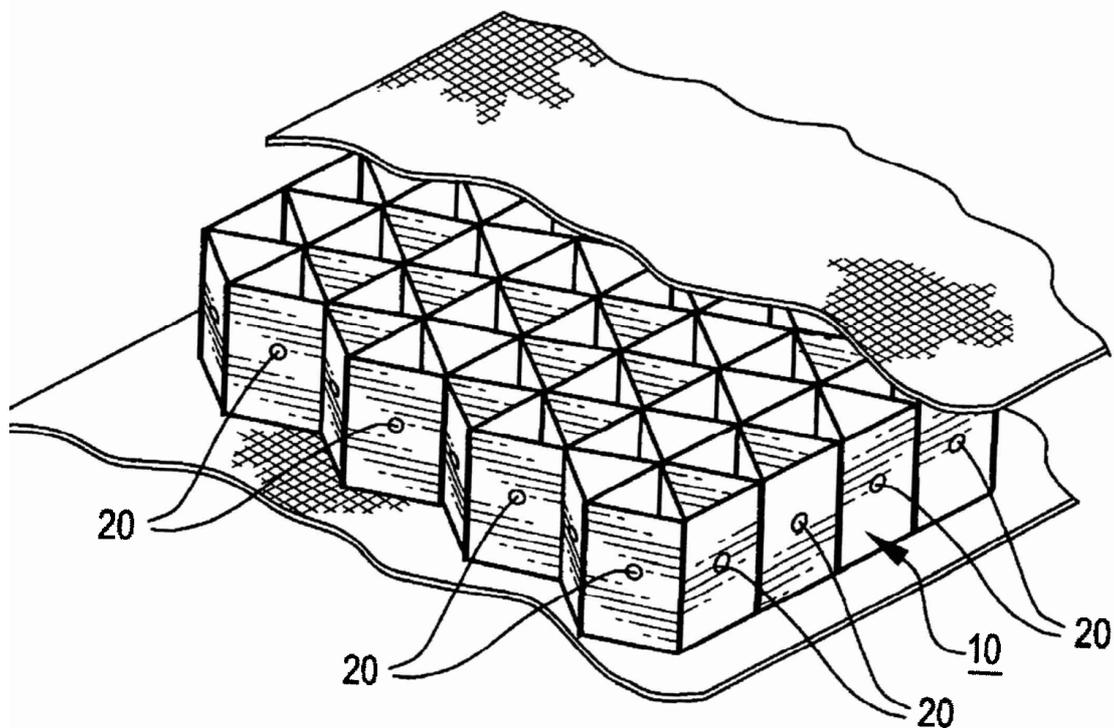
B32B 3/12

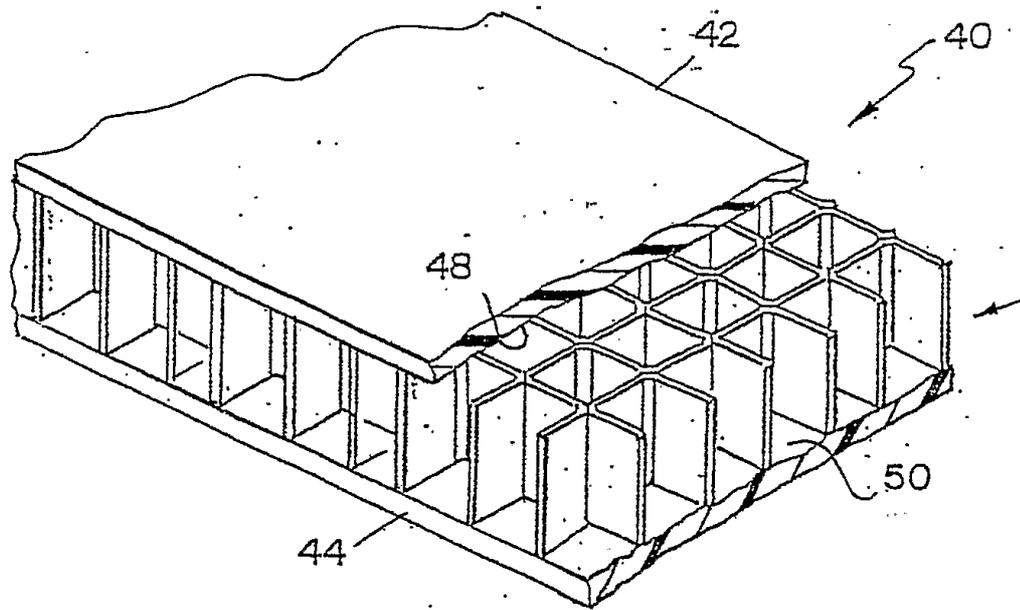
characterised by a layer of regularly- arranged cells, e.g. a honeycomb structure

Definition statement

This subclass/group covers:

Layered products comprising honeycombs and similar layers of cells having a regular, repeating, geometric structure.





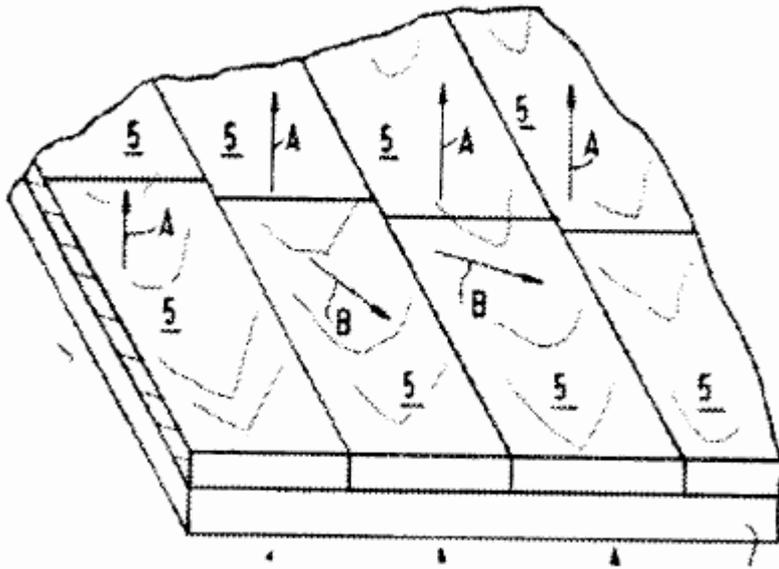
B32B 3/14

characterised by a face layer formed of separate pieces of material [N: which are juxtaposed side-by-side (B32B5/02 takes precedence)]

Definition statement

This subclass/group covers:

Layered products comprising a face layer formed by elements, e.g. tiles, strips, rods, bricks and other elements, which are juxtaposed side-by-side, e.g. mosaics. The elements are laid out in a specific manner rather than merely agglomerated or scattered and are larger than mere particles.



B32B 3/18

characterised by an internal layer formed of separate pieces of material [N: which are juxtaposed side-by-side (B32B5/02 takes precedence)]

Definition statement

This subclass/group covers:

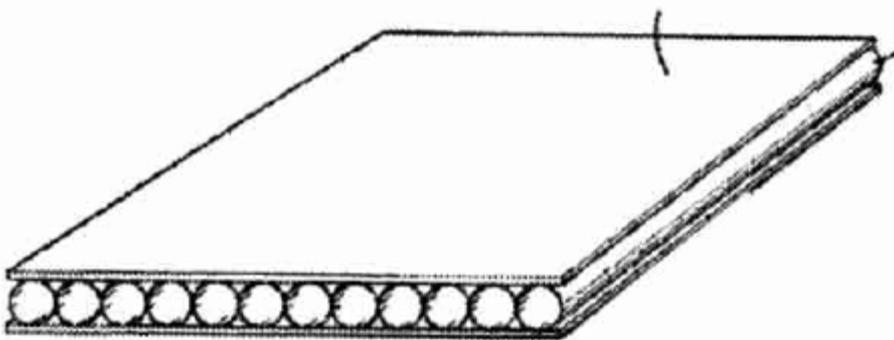
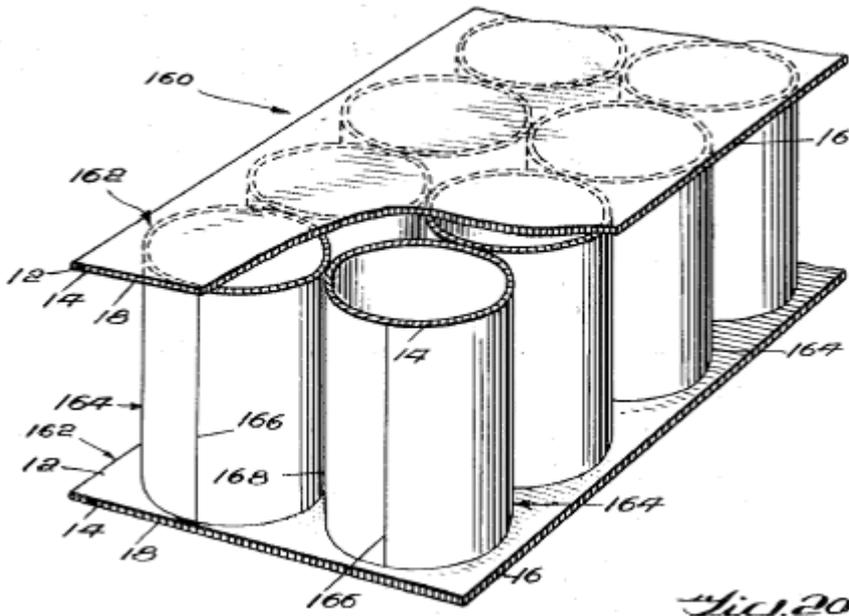
Layered products comprising an internal layer formed by elements, e.g. tiles, strips, rods, bricks and other elements, which are juxtaposed side-by-side, e.g. mosaics. The elements are laid out in a specific manner rather than merely agglomerated or scattered and are larger than mere particles.

B32B 3/20

of hollow pieces, e.g. tubes; of pieces with channels or cavities

Definition statement

This subclass/group covers:



B32B 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 ([N: B32B27/205 takes precedence; foam layer B32B15/08); characterised by an apertured layer]

Definition statement

This subclass/group covers:

[[media14.png](#), width=6.56cm, height=3.52cm]

References relevant to classification in this group

This subclass/group does not cover:

Products characterised by a foamed layer	B32B 5/18
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Products characterised by a synthetic resin layer comprising fillers which create voids or cavities, e.g. by stretching	B32B 27/205
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Cavities	Hollow spaces within a layer
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B32B 3/263

[N: characterised by a layer having non uniform thickness]

Definition statement

This subclass/group covers:

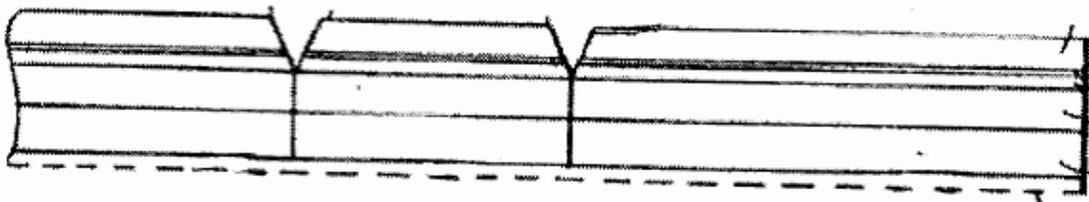
Layered products comprising a layer having changes of thickness which are not of a minor and accidental nature, or a mere, non intended result of a surface structure, e.g. grooves, ribs or protuberances.

B32B 3/266

[N: 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 B32B3/12)]

Definition statement

This subclass/group covers:



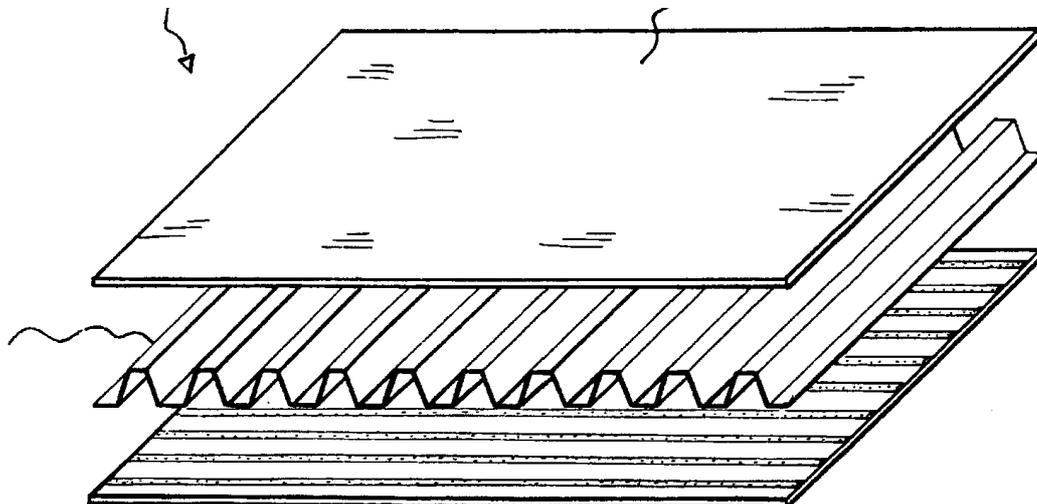
B32B 3/28

characterised by a layer comprising a deformed thin sheet [N:, the layer having its entire thickness deformed out of the

plane, e.g. corrugated, crumpled (for corrugated paper, corrugated cardboard B32B29/08 takes precedence)]

Definition statement

This subclass/group covers:



References relevant to classification in this group

This subclass/group does not cover:

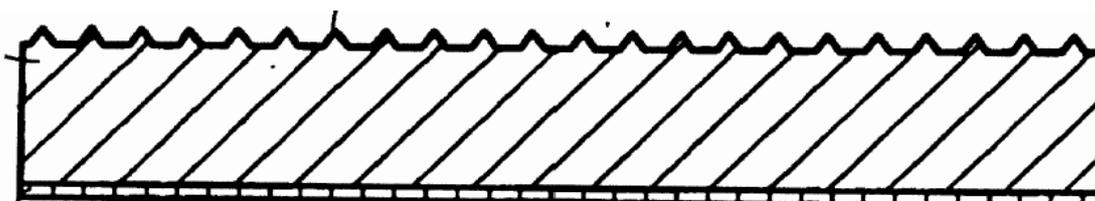
Corrugated paper or corrugated cardboard	B32B 29/08
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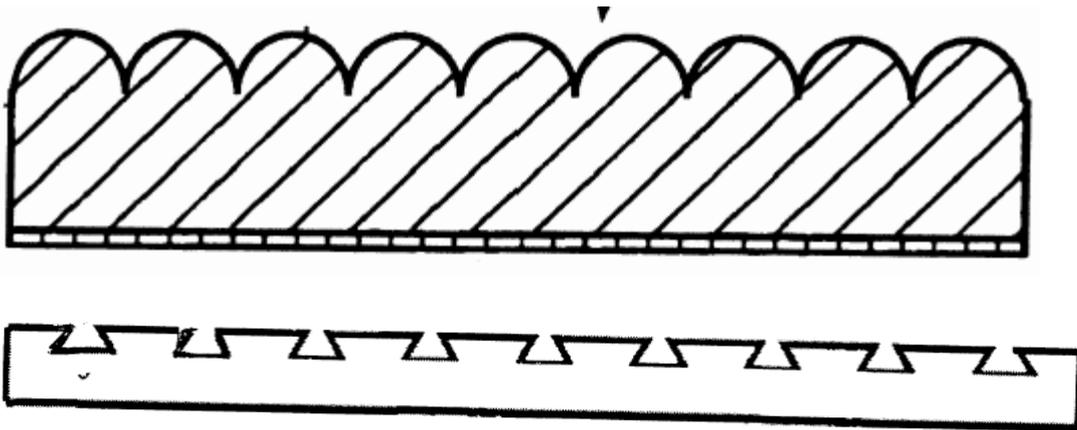
B32B 3/30

characterised by a layer formed with recesses or projections, e.g. [N: hollows, grooves, protuberances, ribs (apertured layer B32B3/263; layer with cavities or internal voids B32B3/26)]

Definition statement

This subclass/group covers:





B32B 5/00

Layered products characterised by the non-homogeneity or physical structure [N:, i.e. comprising a fibrous, filamentary, particulate or foam layer; Layered products characterised by having a layer differing constitutionally or physically in different parts]

Definition statement

This subclass/group covers:

Layered products comprising at least a fibrous, filamentary, particulate or foamed layer (see definitions on [B32B](#) subclass glossary).

References relevant to classification in this group

This subclass/group does not cover:

Layered products characterised by a layer in which fibres, filaments or particles are present as additives, e.g. as fillers	B32B 11/02 , B32B 13/02 , B32B 25/02 , B32B 27/18
Layered products characterised by a layer being formed of fibres, chips, or particles, e.g. MDF, HDF, OSB, chipboard, particle board or hardboard layer	B32B 21/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Production of macromolecular porous	C08J 9/00
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or cellular articles	
Woven materials	D03D
Knitted materials	D04B
Non-woven materials	D04H
Tufted materials	D05C 17/00
Polymeric coatings on fibrous web	D06N
Producing multi-layer textile fabrics	D06M 17/00

Special rules of classification within this group

- [B32B 5/28](#) contain documents published before 2006 and are no longer used for the classification of documents after this date.
- Coating on a fibrous, filamentary or particulate layer is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest.
- The fibres, filaments or particles of a fibrous, filamentary or particulate layer may be impregnated, embedded or bonded with a substance such as a synthetic resin. If said substance is important an additional appropriate Indexing Code in [L32B 260/00IS](#) given.
- If the nature of the fibres or filaments forming the fibrous or filamentary layer is important an additional appropriate Indexing Code in [L32B 262/00IS](#) given.
- If the nature of the particles forming the particulate layer is important an additional appropriate Indexing Code in [L32B 264/00IS](#) given.
- If the nature of the foam forming the foamed layer is important an additional appropriate Indexing Code in [L32B 266/00IS](#) given.

B32B 5/02

characterised by structural features of a [N: fibrous or filamentary layer (B32B15/02 and B32B21/02 take precedence; layer formed of particles B32B5/16; layers formed of natural mineral fibres B32B19/00; coated or impregnated fibrous or filamentary layers B32B2255/02 or B32B2260/021)]

Definition statement

This subclass/group covers:

Layered products comprising a fibrous or filamentary layer including a fabric made from ribbons or tapes, or a layer formed by regularly laid parallel cords or filaments, which may be bunched, flat or slightly separated.

Special rules of classification within this group

Layered products wherein all layers are fibrous or filamentary layers are additionally classified in [B32B 2250/20](#) if of interest.

B32B 5/12

characterised by the relative arrangement of fibres or filaments of [N: different layers e.g. the fibres or filaments being parallel or perpendicular to each other]

Definition statement

This subclass/group covers:

Layered products characterised by a particular arrangement of the fibres or filaments of the layers, e.g. fibres or filaments of the different layers being parallel or perpendicular to each other. The layers may be next to each other or separated by other layers.

B32B 5/18

characterised by features of a layer [N: of] foamed material

Special rules of classification within this group

Layered products wherein all layers are foamed layers are additionally classified in [B32B 2250/22](#) if of interest.

B32B 7/00

Layered products characterised by the relation between layers, i.e. products comprising layers having different physical properties and products characterised by the interconnection of layers

References relevant to classification in this group

This subclass/group does not cover:

Products characterised by a fibrous layer mechanically connected to another layer	B32B 5/06
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B32B 7/005

[N: in respect of orientation features (B32B5/12 takes precedence)]

Definition statement

This subclass/group covers:

Layered products characterised by particular orientation features of the different layers, e.g. axis of corrugation of the different layers being perpendicular or parallel to each other, or elements forming the different layers having different orientations. The layers may be next to each other or separated by other layers.

B32B 7/02

in respect of physical properties, e.g. hardness

Definition statement

This subclass/group covers:

Layered products with at least two layers having a different physical property, e.g. density, melting point, refractive index. Examples of this type of products are those comprising layers of:

- Hard and softwood,
- High and low density PE,
- Two nylons having different hardness,
- Oriented PP and non-oriented PP,
- Plasticized and non-plasticized PVC.

B32B 7/12

using an adhesive[N:, i.e. any interposed material having adhesive or bonding properties]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Adhesive processes in general or use of a material as adhesive	C09J
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B32B 9/00

Layered products comprising a [N: layer of a particular substance not covered by groups B32B11/00 to B32B17/00 or B32B19/00 to B32B29/00]

References relevant to classification in this group

This subclass/group does not cover:

Layered products with all layers being exclusively ceramic	B32B 18/00
Layered products characterised by having a fibrous or filamentary layer made of a substance not covered by groups B32B 11/00 to B32B 17/00 or B32B 19/00 to B32B 29/00	B32B 5/02 , B32B 2262/00 - B32B 2262/14
Layered products characterised by having a particulate layer made of a substance not covered by groups B32B 11/00 to B32B 17/00 or B32B 19/00 to B32B 29/00	B32B 5/16 , B32B 2264/00 - B32B 2264/12
Layered products characterised by having a foamed layer made of a substance not covered by groups B32B 11/00 to B32B 17/00 or B32B 19/00 to B32B 29/00	B32B 5/18 , B32B 2266/00 - B32B 2266/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Products comprising at least two ceramic layers next to each other	B32B 18/00
Joining ceramic layers with other ceramic layers or layers of other materials by heating	C04B 37/00

B32B 9/002

[N: comprising natural stone or artificial stone]

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Artificial stone	Material made by crushing and grinding natural stone and then re-constituting it, e.g. with cement mortar or with a resin binder
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B32B 11/00

Layered products comprising [N: a layer of] bituminous or tarry substances

B32B 11/02

with fibres or particles [N: being present as additives in the layer]]

References relevant to classification in this group

This subclass/group does not cover:

Product characterised by a fibrous or filamentary layer embedded or impregnated in a bituminous substance	B32B 5/02 , B32B 2260/042
Product characterised by a particulate layer embedded or impregnated in a bituminous substance	B32B 5/16 , B32B 2260/042

Special rules of classification within this group

- If the nature of the fibres or filaments is important an additional appropriate Indexing Code in [L32B 262/00IS](#) given.
- If the nature of the particles is important an additional appropriate Indexing Code in [L32B 264/00IS](#) given.

B32B 13/00

Layered products comprising [N: a layer of] a water-setting substance, e.g. concrete, plaster, asbestos cement, or like builders' material

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cements; Compositions thereof, e.g. mortars, concrete or like building materials	C04B
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B32B 13/02

with fibres or particles [N: being present as additives in the layer]

References relevant to classification in this group

This subclass/group does not cover:

Product characterised by a fibrous or filamentary layer embedded or impregnated in a water-setting substance	B32B 5/02 , B32B 2260/044
Product characterised by a particulate layer embedded or impregnated in a water-setting substance	B32B 5/16 , B32B 2260/044

Special rules of classification within this group

- If the nature of the fibres or filaments is important an additional appropriate Indexing Code in [B32B 2262/00](#) is given.
- If the nature of the particles is important an additional appropriate Indexing Code in [L32B 264/00IS](#) given.

B32B 15/00

Layered products comprising [N: a layer of] metal

Definition statement

This subclass/group covers:

Layered products characterized by having a continuous or discontinuous metal layer including a layer formed of wires, e.g. a mesh ([B32B 15/02](#)).

References relevant to classification in this group

This subclass/group does not cover:

Layered products characterised by having a metallic fibrous or filamentary layer	B32B 5/02 , B32B 2262/103
Layered products characterised by having a metallic particulate layer	B32B 5/16 , B32B 2264/105
Layered products characterised by having a metallic foamed layer	B32B 5/18 , B32B 2266/045

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coatings on or with metals	C23C
Electrolytic deposition of metals	C25D

Special rules of classification within this group

Coating on a metallic layer is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest.

B32B 19/00

Layered products comprising [N: a layer of natural mineral fibres or particles, e.g. asbestos, mica]

Definition statement

This subclass/group covers:

Layered products characterized by having a layer made of naturally occurring mineral fibres or particles.

References relevant to classification in this group

This subclass/group does not cover:

Layered products characterized by having a layer of rockwool fibres	B32B 5/02 , B32B 2262/108
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Special rules of classification within this group

Products classified in this group are also classified in [B32B 5/00IF](#) of interest.

B32B 19/02

[N: the layer of fibres or particles being impregnated or] embedded in a plastic substance

References relevant to classification in this group

This subclass/group does not cover:

Products characterised by a plastic layer with natural mineral fibres or particles being present as additives	B32B 25/02 or B32B 27/18
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B32B 21/00

Layered products essentially comprising wood, e.g. wood board, veneer, wood particle board

Informative references

Attention is drawn to the following places, which may be of interest for search:

Working veneer or plywood	B27D
Treating of wood	B27K
Manufacturing articles made of fibres or particles of wood	B27N

Special rules of classification within this group

- Coating on a wood layer is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest

- Impregnation of a wood layer is classified with appropriate Indexing Code in [L32B 260/00IF](#) of interest

B32B 23/00

Layered products comprising [N: a layer of] cellulosic plastic substances [N: i.e. substances obtained by chemical modification of cellulose, e.g. cellulose ethers, cellulose esters, viscose]

References relevant to classification in this group

This subclass/group does not cover:

Products characterised by having fibrous or filamentary layer made of a cellulosic plastic substance	B32B 5/02 , B32B 2262/00 - B32B 2262/14
Layered products characterised by having a particulate layer made of a cellulosic plastic substance	B32B 5/16 , B32B 2264/00 - B32B 2264/12

Special rules of classification within this group

[B32B 23/02](#) contains documents published before 2006 and are no longer used for the classification of documents after this date.

B32B 25/00

Layered products comprising [N: a layer of] natural or synthetic rubber [N: (B32B5/02, B32B5/16 and B32B5/18 take precedence; thermoplastic elastomer B32B2274/00)]]

Definition statement

This subclass/group covers:

Layered products characterized by a layer of thermosetting synthetic rubber.

References relevant to classification in this group

This subclass/group does not cover:

Layered products characterised by having a fibrous or filamentary layer made of a natural or synthetic rubber	B32B 5/02 , B32B 2262/00 - B32B 2262/14
Layered products characterised by	B32B 5/16 , B32B 2264/0207

having a particulate layer made of a natural or synthetic rubber	
Layered products characterised by having a foamed layer made of a natural or synthetic rubber	B32B 5/18 , B32B 2266/0207

Informative references

Attention is drawn to the following places, which may be of interest for search:

Manufacture of polymeric films or sheets	C08J 5/00
Compositions of macromolecular compounds	C08L

Special rules of classification within this group

- [B32B 25/00B](#) contains documents published before 2006 and are no longer used for the classification of documents after this date.
- Layered products wherein all layers are polymeric are additionally classified in [B32B 2250/24](#) if of interest.
- Coating on a layer of natural or synthetic rubber is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Thermosetting Rubber	Vulcanized rubber that cannot be re-melted or remolded without destroying its original characteristics.
Vulcanization	An irreversible process during which a rubber compound through a change in its chemical structure (for example, cross-linking) becomes less plastic and more resistant to swelling by organic liquids and elastic properties are conferred, improved, or extended over a greater range of temperature.

B32B 25/02

with fibres or particles [N: being present as additives in the layer]

References relevant to classification in this group

This subclass/group does not cover:

Product characterised by a fibrous or filamentary layer embedded or impregnated in a natural or synthetic rubber	B32B 5/02 , B32B 2260/048
Product characterised by a particulate layer embedded or impregnated in a natural or synthetic rubber	B32B 5/16 , B32B 2260/048

Special rules of classification within this group

If the nature of the fibres or filaments forming the fibrous or filamentary layer is important an additional appropriate Indexing Code in [B32B 2262/00](#) is given.

B32B 27/00

Layered products comprising [N: a layer of] synthetic resin [N: (B32B5/02, B32B5/16 and B32B5/18 take precedence; thermoplastic elastomer B32B2274/00)]

Definition statement

This subclass/group covers:

Layered products characterized by a layer of a synthetic resin other than a cellulosic plastic resin or a thermosetting synthetic rubber.

References relevant to classification in this group

This subclass/group does not cover:

Layered products characterised by having a fibrous or filamentary layer made of synthetic resin	B32B 5/02 , B32B 2262/00 - B32B 2262/14
Layered products characterised by having a particulate layer made of a	B32B 5/16 , B32B 2264/00 - B32B 2264/12

synthetic resin	
Layered products characterised by having a foamed layer made of a natural or synthetic rubber	B32B 5/18 , B32B 2266/00 - B32B 2266/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Manufacture of polymeric films or sheets	C08J 5/00
Compositions of macromolecular compounds	C08L

Special rules of classification within this group

- [B32B 27/00B](#), [B32B 27/02](#) and [B32B 27/04](#) contain documents published before 2006 and are no longer used for the classification of documents after this date.
- Layered products wherein all layers are polymeric are additionally classified in [B32B 2250/24](#) if of interest.
- Coating on a layer of synthetic resin is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest.

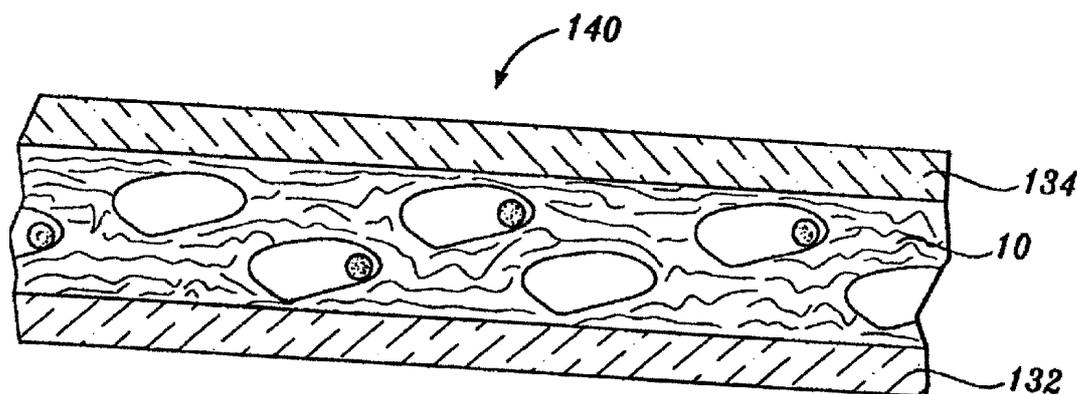
B32B 27/205

[N: the fillers creating voids or cavities, e.g. by stretching]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group:



B32B 27/30

comprising vinyl [N: (co)polymers; comprising acrylic (co)polymers]

Special rules of classification within this group

Layered products wherein all layers are made of polymers belonging to [B32B 27/30](#) and [B32B 27/32](#) are classified in [B32B 2250/246](#) if of interest.

B32B 27/32

comprising polyolefins [N: (for vinyl or acrylic copolymers B32B27/30 takes precedence)]

Special rules of classification within this group

- Layered products wherein all layers are made of polymers belonging to [B32B 27/32](#) are classified in [B32B 2250/242](#) if of interest.
- Layered products wherein all layers are made of polymers belonging to [B32B 27/30](#) and [B32B 27/32](#) are classified in [B32B 2250/246](#) if of interest.

B32B 27/36

comprising polyesters

Special rules of classification within this group

Layered products wherein all layers are made of polymers belonging to [B32B 27/36](#) are classified in [B32B 2250/244](#) if of interest.

B32B 29/00

Layered products comprising [N: a layer of] paper or cardboard

Informative references

Attention is drawn to the following places, which may be of interest for search:

Impregnation or coating of paper; special paper	D21H
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Special rules of classification within this group

- All product layers being made of paper or paperboard are classified in [B32B 2250/26](#) if of interest
- Coating on a paper or paperboard layer is classified with appropriate Indexing Code in [L32B 255/00IF](#) of interest
- Impregnation of a paper or paperboard layer is classified with appropriate Indexing Code in [L32B 260/00IF](#) of interest

B32B 33/00

Layered products characterised by particular properties or particular surface features, e.g. particular surface coatings (surface unevennesses or non-uniformities B32B3/00); Layered products designed for particular purposes not covered by another single class

Special rules of classification within this group

Properties should as far as possible be classified in [B32B 2307/00](#)

B32B 37/00

Methods or apparatus for laminating, e.g. by curing or by ultrasonic bonding [N: (making non-planar products B32B1/00; making products characterised by particular features of structure or of composition, see the relevant groups for such products, e.g. making layered products

containing glass and synthetic resin layers B32B17/10807; coating of single webs or the like B05]

References relevant to classification in this group

This subclass/group does not cover:

Coextrusion per se which is classified in [B29C 47/00](#).

Coating per se which is covered in [B05](#).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Lining or sheathing with preformed layers of plastic an object which cannot be seen as a layer	B29C 63/00
Making composites	B29C 70/00
Corrugating paper combined with laminating	B31F 1/20
Associating two or more webs	B65H 39/16

Special rules of classification within this group

Coextrusion steps are classified in [B32B 37/153](#) or [B32B 37/153](#) as long as the coextruded layers are joined with at least one additional layer.

Coating steps are classified in [B32B 2037/243](#) as long as the coated layers are joined with at least one additional layer.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Separate pieces of material	Layer if the total surface of the separate pieces is substantially the same as the surface of the other laminate layers.
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B32B 37/025

[N: Transfer laminating]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Labelling	B65C 9/00
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Special rules of classification within this group

Particular aspects directed to removing the carrier layers are classified in [B32B 38/10](#).

B32B 37/18

involving the assembly of discrete sheets or panels only

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Discrete sheets or panels	Dimension of sheets or panels is determined at the instant when sheets or panels come into contact.
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B32B 37/20

involving the assembly of continuous webs only

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Continuous webs	Dimension of webs or layers is determined at the instant when webs or layers come into contact.
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B32B 37/22

involving the assembly of both discrete and continuous layers

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Discrete and continuous layers	Dimension of layers is determined at the instant when layers come into contact.
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B32B 38/00

Ancillary operations in connection with laminating processes

References relevant to classification in this group

This subclass/group does not cover:

Operations implemented on layered products not in connection with the lamination process are classified in fields related to said operations or in [B32B 43/00](#).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In connection with laminating processes	Ancillary operations are carried out: - either as steps of the lamination processes, or - in line with the lamination processes, just before or immediately after
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B32B 38/0032

[N: increasing porosity (B32B38/04 takes precedence)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Permeability to gases	B32B 2307/724
Permeability to liquids	B32B 2307/726

B32B 38/14

Printing or colouring

Informative references

Attention is drawn to the following places, which may be of interest for search:

Printing per se	B41M
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B32B 39/00

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

Definition statement

This subclass/group covers:

e.g. layout of stations in a manufacturing line.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Constructional aspects of laminating apparatus	B32B 37/0046
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B32B 41/00

Arrangements for controlling or monitoring lamination processes; Safety arrangements

Definition statement

This subclass/group covers:

- Arrangements for controlling or monitoring lamination parameters;
- Arrangements for detecting defaults and taking corrective measures;
- Arrangements for controlling quality.

B32B 43/00

Operations specially adapted for layered products and not otherwise provided for, e.g. repairing; Apparatus therefor

References relevant to classification in this group

This subclass/group does not cover:

Operations carried out during or in connection with lamination process:	B32B 37/00 or B32B 38/00
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Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Specially adapted for layered products	The layered structure of the product governs the operations or the apparatus structure
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