Cooperative Patent Classification (CPC) – 2019.05

B31B

**PERFORMING OPERATIONS; TRANSPORTING**

**(NOTES omitted)**

**SHAPING**

**B31**

**MAKING ARTICLES OF PAPER, CARDBOARD OR MATERIAL WORKED IN A MANNER ANALOGOUS TO PAPER; WORKING PAPER, CARDBOARD OR MATERIAL WORKED IN A MANNER ANALOGOUS TO PAPER**

**(NOTES omitted)**

**B31B**

**MAKING CONTAINERS OF PAPER, CARDBOARD OR MATERIAL WORKED IN A MANNER ANALOGOUS TO PAPER** (making wound articles, e.g. wound tubes, **B31C**; combined making and filling **B65B**)

**NOTE**

In this subclass, the following terms or expressions are used with the meaning indicated:

- "rigid or semi-rigid containers" includes:
  - containers not deformed by, or not taking-up the shape of, their contents;
  - containers adapted to be temporarily deformed to expel their contents;
  - pallets;
  - trays;
- "flexible containers" includes:
  - containers deformed by, or taking-up the shape of, their contents;
  - containers adapted to be permanently deformed to expel their contents.

50/00 Making rigid or semi-rigid containers, e.g. boxes or cartons

**NOTE**

In this group, it is desirable to add the indexing codes of groups **B31B 2100/00** – **B31B 2120/00**.

**WARNING**

Group **B31B 50/00** is incomplete pending reclassification of documents from groups **B31D 1/00**, **B31D 3/00**, **B31D 5/00**, **B31D 5/02**, **B31D 5/04** and **B31D 99/00**.

Group **B31B 50/00** is also impacted by reclassification into group **B31B 50/59**.

All groups listed in this warning should be considered in order to perform a complete search.

50/002 Making rigid or semi-rigid containers, e.g. boxes or cartons

50/002 . . . Feeding or positioning sheets, blanks or webs

**WARNING**

Group **B31B 50/02** is impacted by reclassification into groups **B31B 50/022** - **B31B 50/12**.

All groups listed in this warning should be considered in order to perform a complete search.

50/002 . . . (Holders for feeding or positioning blanks or webs)

**WARNING**

Groups **B31B 50/022** - **B31B 50/12** are incomplete pending reclassification of documents from group **B31B 50/02**.

All groups listed in this warning should be considered in order to perform a complete search.

50/004 Feeding sheets or blanks

50/0042 . . . (using rolls, belts or chains)

50/0044 . . . (involving aligning)

50/0046 . . . (involving changing orientation or changing direction of transport)

50/006 Controlling; Regulating; Measuring; Improving safety
50/06 . . . from stacks

**WARNING**

Group B31B 50/06 is incomplete pending reclassification of documents from group B31B 50/02.

All groups listed in this warning should be considered in order to perform a complete search.

50/062 . . . {from the underside of a magazine}
50/064 . . . {by being moved in the plane they are lying in}
50/066 . . . {from above a magazine}
50/07 . . . by air pressure or suction

**WARNING**

Group B31B 50/07 is incomplete pending reclassification of documents from group B31B 50/02.

Groups B31B 50/02 and B31B 50/07 should be considered in order to perform a complete search.

50/10 . . . Feeding or positioning webs
50/102 . . . {using rolls, belts or chains}
50/104 . . . {involving aligning}
50/106 . . . {involving changing orientation or changing direction of transport}
50/12 . . . by air pressure or suction

**WARNING**

Group B31B 50/12 is incomplete pending reclassification of documents from group B31B 50/02.

Groups B31B 50/02 and B31B 50/12 should be considered in order to perform a complete search.

50/14 . . . Cutting, e.g. perforating, punching, slitting or trimming (cutting window openings B31B 50/83)

**WARNING**

Group B31B 50/14 is impacted by reclassification into groups B31B 50/142 - B31B 50/22 and B31B 50/83.

All groups listed in this warning should be considered in order to perform a complete search.

50/142 . . . {using presses or dies}

**WARNING**

Groups B31B 50/142 - B31B 50/22 are incomplete pending reclassification of documents from group B31B 50/14.

All groups listed in this warning should be considered in order to perform a complete search.

50/144 . . . {using tools mounted on belts or chains}
50/146 . . . {using tools mounted on a drum}

50/16 . . . Cutting webs

**WARNING**

Group B31B 50/16 is incomplete pending reclassification of documents from group B31B 50/14. Group B31B 50/16 is also impacted by reclassification into group B31B 50/18.

Groups B31B 50/14, B31B 50/16 and B31B 50/18 should be considered in order to perform a complete search.

50/18 . . . longitudinally

**WARNING**

Group B31B 50/18 is incomplete pending reclassification of documents from groups B31B 50/14 and B31B 50/16.

All groups listed in this warning should be considered in order to perform a complete search.

50/20 . . . Cutting sheets or blanks

**WARNING**

Groups B31B 50/20 and B31B 50/22 are incomplete pending reclassification of documents from group B31B 50/14.

Groups B31B 50/14, B31B 50/20 and B31B 50/22 should be considered in order to perform a complete search.

50/22 . . . Notching; Trimming edges of flaps
50/25 . . Surface scoring
50/252 . . {using presses or dies}
50/254 . . {using tools mounted on belts or chains}
50/256 . . {using tools mounted on a drum}
50/26 . . Folding sheets, blanks or webs

**WARNING**

Group B31B 50/26 is impacted by reclassification into groups B31B 50/262 - B31B 50/585.

All groups listed in this warning should be considered in order to perform a complete search.

50/262 . . . {involving folding, leading, or trailing flaps of blanks}

**WARNING**

Group B31B 50/262 is incomplete pending reclassification of documents from group B31B 50/26.

Groups B31B 50/26 and B31B 50/262 should be considered in order to perform a complete search.
around mandrels, e.g. for forming bottoms

**WARNING**

Groups B31B 50/28 - B31B 50/34 are incomplete pending reclassification of documents from group B31B 50/26.

All groups listed in this Warning should be considered in order to perform a complete search.

{ involving stripping-off formed boxes from mandrels }

50/30 ... the mandrels moving
50/32 ... in circular paths
50/322 ... { the mandrels extending radially from the periphery of a drum }
50/324 ... { the mandrels being parallel to the axis of a drum }
50/326 ... { the mandrels extending tangentially to the periphery of a drum }
50/34 ... about their own axes
50/36 ... by continuously feeding the sheets, blanks or webs to stationary members, e.g. plates, ploughs or cores

**WARNING**

Group B31B 50/36 is incomplete pending reclassification of documents from group B31B 50/26.

Group B31B 50/36 is also impacted by reclassification into groups B31B 50/38, B31B 50/40 and B31B 50/42.

All groups listed in this warning should be considered in order to perform a complete search.

50/38 ... the members being forming-tubes

**WARNING**

Groups B31B 50/38, B31B 50/40 and B31B 50/42 are incomplete pending reclassification of documents from groups B31B 50/26 and B31B 50/36.

All groups listed in this warning should be considered in order to perform a complete search.

50/40 ... acting internally
50/42 ... acting externally
50/44 ... by plungers moving through folding dies

**WARNING**

Group B31B 50/44 is incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/52 and B31B 50/54.

Group B31B 50/44 is also impacted by reclassification into groups B31B 50/442 and B31B 50/444.

All groups listed in this warning should be considered in order to perform a complete search.

50/48 ... by folding or tucking in locking flaps

**WARNING**

Groups B31B 50/48 and B31B 50/50 are incomplete pending reclassification of documents from groups B31B 50/26, B31B 50/46, B31B 50/52 and B31B 50/54.

All groups listed in this warning should be considered in order to perform a complete search.

50/50 ... by interengaging tongues and slots
50/52 ... by reciprocating or oscillating members, e.g. fingers (by plungers moving through folding dies B31B 50/44)

**WARNING**

Group B31B 50/52 is incomplete pending reclassification of documents from group B31B 50/26.

Group B31B 50/52 is also impacted by reclassification into groups B31B 50/54 and B31B 50/44-B31B 50/50.

All groups listed in this warning should be considered in order to perform a complete search.
operating on moving material

**WARNING**

Group B31B 50/54 is incomplete pending reclassification of documents from groups B31B 50/26 and B31B 50/52.

Group B31B 50/54 is also impacted by reclassification into groups B31B 50/44-B31B 50/50.

All groups listed in this warning should be considered in order to perform a complete search.

50/56 . . . by rotary members co-operating with blades

**WARNING**

Groups B31B 50/56, B31B 50/58 and B31B 50/585 are incomplete pending reclassification of documents from groups B31B 50/26.

All groups listed in this Warning should be considered in order to perform a complete search.

50/58 . . . by moving endless belts (or chains)
50/585 . . . by air jets
50/59 . . . Shaping sheet material under pressure (by folding B31B 50/26; embossing B31B 50/88)

**WARNING**

Group B31B 50/59 is incomplete pending reclassification of documents from group B31B 50/00.

Groups B31B 50/00 and B31B 50/59 should be considered in order to perform a complete search.

50/592 . . . (using punches or dies)
50/594 . . . (Modifying the shape of tubular boxes or of paper bottle necks)
50/60 . . . Uniting opposed surfaces or edges; Taping

**WARNING**

Group B31B 50/60 is impacted by reclassification into groups B31B 50/61 - B31B 50/734.

All groups listed in this warning should be considered in order to perform a complete search.

50/61 . . . (Uniting opposed edges by injecting thermoplastic material)

**WARNING**

Groups B31B 50/61 is incomplete pending reclassification of documents from group B31B 50/60.

Groups B31B 50/60 and B31B 50/61 should be considered in order to perform a complete search.

50/62 . . . by adhesives

**WARNING**

Group B31B 50/62 - B31B 50/626 are incomplete pending reclassification of documents from groups B31B 50/60 and B31B 50/64.

All groups listed in this warning should be considered in order to perform a complete search.

50/622 . . . (Applying glue on already formed boxes)
50/624 . . . (Applying glue on blanks)
50/626 . . . (Arrangements for permitting the glue to set)
50/64 . . . by applying heat or pressure, e.g. by welding (to unite areas where adhesives are applied B31B 50/62)

**WARNING**

Group B31B 50/64 is incomplete pending reclassification of documents from group B31B 50/60.

Group B31B 50/64 is also impacted by reclassification into groups B31B 50/62, B31B 50/622, B31B 50/624, B31B 50/626, and B31B 50/66.

All groups listed in this Warning should be considered in order to perform a complete search.

50/642 . . . (using sealing jaws or sealing dies)

**WARNING**

Groups B31B 50/642 - B31B 50/649 are incomplete pending reclassification of documents from group B31B 50/60.

All groups listed in this Warning should be considered in order to perform a complete search.

50/644 . . . (Making seals parallel to the direction of movement, i.e. longitudinal sealing)
50/645 . . . (Making seals transversally to the direction of movement)
50/648 . . . (using tools mounted on belts or chains)
50/649 . . . (using tools mounted on a drum)
50/66 . . . by high-frequency electric heating

**WARNING**

Group B31B 50/66 is incomplete pending reclassification of documents from groups B31B 50/60 and B31B 50/64.

Groups B31B 50/60, B31B 50/64 and B31B 50/66 should be considered in order to perform a complete search.

50/68 . . . by stitching, stapling or riveting

**WARNING**

Groups B31B 50/68 - B31B 50/70 are incomplete pending reclassification of documents from groups B31B 50/60.

All groups listed in this Warning should be considered in order to perform a complete search.

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50/682 . . . [for closing the bottom flaps of boxes, or for securing bottoms or caps to box bodies]
50/684 . . . [for joining the overlapping edges of collapsed blanks to form tubular blanks]
50/686 . . . [for attaching hinged covers to boxes]
50/70 . . . by corner stapling
50/72 . . . by applying and securing strips or sheets

**WARNING**
Groups B31B 50/72 - B31B 50/726 are incomplete pending reclassification of documents from groups B31B 50/660.

All groups listed in this Warning should be considered in order to perform a complete search.

50/722 . . . [on already formed boxes]
50/724 . . . . [Applying tapes on the corners of set-up boxes, e.g. involving setting-up]
50/726 . . . [for uniting meeting edges of collapsed boxes]
50/73 . . . by mechanically interlocking integral parts, e.g. by tongues and slots (interconnecting side walls during folding by plungers moving through folding dies B31B 50/46)
50/732 . . . [by folding or tucking-in locking flaps]
50/734 . . . . [interengaging tongues and slots]

**WARNING**
Groups B31B 50/73 - B31B 50/734 are incomplete pending reclassification of documents from groups B31B 50/660.

All groups listed in this Warning should be considered in order to perform a complete search.

50/74 . Auxiliary operations

**WARNING**
Group B31B 50/74 is impacted by reclassification into groups B31B 50/741 - B31B 50/98.

All groups listed in this warning should be considered in order to perform a complete search.

50/741 . . . [Moistening; Drying; Cooling; Heating; Sterilizing]

**WARNING**
Group B31B 50/741 is incomplete pending reclassification of documents from group B31B 50/74.

Groups B31B 50/741 and B31B 50/74 should be considered in order to perform a complete search.

50/742 . . . [Coating; Impregnating; Waterproofing; Decoating]

**WARNING**
Groups B31B 50/742 - B31B 50/756 are incomplete pending reclassification of documents from group B31B 50/74.

All groups listed in this Warning should be considered in order to perform a complete search.

50/743 . . . [Coating or impregnating edges or corners]
50/745 . . . [Coating or impregnating formed boxes]
50/747 . . . [Coating or impregnating blanks or webs]
50/75 . . . . [by immersing in a bath]
50/753 . . . . [by spraying]
50/756 . . . . . [only the interior of the boxes]
50/76 . . . Opening and distending flattened articles

**WARNING**
Groups B31B 50/76 is incomplete pending reclassification of documents from group B31B 50/74.

Groups B31B 50/76 and B31B 50/74 should be considered in order to perform a complete search.

50/78 . . . Mechanically
50/782 . . . . [by pushing the opposite ends of collapsed blanks towards each other]
50/784 . . . . [for setting up boxes having their opening facing upwardly]
50/786 . . . . . [by introducing opening fingers in the collapsed blanks]
50/787 . . . . . . [Rotating fingers; Two or more fingers moving relatively to each other]
50/788 . . . . . . . [by introducing the blanks into undeformable holders, e.g. on a drum or on chains]
50/80 . . . Pneumatically
50/802 . . . . . [for setting-up boxes having their opening facing upwardly]
50/804 . . . . . . [using two or more suction devices on a rotating element]
50/81 . . . Forming or attaching accessories, e.g. opening devices, closures or tear strings

**WARNING**
Group B31B 50/81 is incomplete pending reclassification of documents from B31B 50/74.

Group B31B 50/81 is also impacted by reclassification into groups B31B 50/84 and B31B 50/85.

All groups listed in this Warning should be considered in order to perform a complete search.

50/811 . . . . [Applying strips, strings, laces or ornamental edgings to formed boxes]

**WARNING**
Groups B31B 50/811-B31B 50/8144 are incomplete pending reclassification of documents from group B31B 50/74.

All groups listed in this Warning should be considered in order to perform a complete search.

50/812 . . . . [Applying tabs, patches, strips or strings on blanks or webs]
50/8121 . . . . . [Applying tabs on corners of box blanks]
50/8122 . . . . . . [Applying patches]
50/8123 . . . . . . . [the blanks remaining stationary during application of the patches]
1. Processes or apparatus for making both flexible containers and rigid or semi-rigid containers are classified in group B31B 50/00.

2. In this group, it is desirable to add the indexing codes of groups B31B 2150/00, B31B 2170/00.

70/00 Making flexible containers, e.g. envelopes or bags

NOTES

1. Processes or apparatus for making both flexible containers and rigid or semi-rigid containers are classified in group B31B 50/00.

2. In this group, it is desirable to add the indexing codes of groups B31B 2150/00, B31B 2170/00.

70/001 . . . (Shaping, other than by folding, sheet material under pressure)

70/002 . . . (using punches or dies)

70/003 . . . (Opening or distending bags)

70/004 . . . (Closing bags)

70/005 . . . (involving a particular layout of the machinery or relative arrangement of its subunits)

70/006 . . . (Controlling; Regulating; Measuring; Safety measures)

70/008 . . . (Stiffening or reinforcing (B31B 70/876 takes precedence))

WARNING

Group B31B 70/008 is impacted by reclassification into group B31B 70/876.

Groups B31B 70/008 and B31B 70/876 should be considered in order to perform a complete search.

70/002 . . . Feeding or positioning sheets, blanks or webs

70/004 . . . Feeding sheets or blanks

70/01 . . . Forming integral handles; Attaching separate handles

WARNING

Groups B31B 50/86 - B31B 50/98 are incomplete pending reclassification of documents from group B31B 50/974.

All groups listed in this Warning should be considered in order to perform a complete search.

50/87 . . . . (Fitting separate handles on boxes, e.g. on drinking cups)

50/88 . . Printing; Embossing

50/92 . . Delivering

50/94 . . . singly or in succession

50/96 . . . in an overlapping arrangement

50/98 . . . in stacks or bundles

50/99 . . . using hand tools

WARNING

Group B31B 50/99 is incomplete pending reclassification of documents from group B31B 2247/00.

Group B31B 50/99 is also impacted by reclassification into group B31B 70/99.

All groups listed in this warning should be considered in order to perform a complete search.

50/86 . . . Forming integral handles; Attaching separate handles

WARNING

Groups B31B 50/86 - B31B 50/98 are incomplete pending reclassification of documents from group B31B 50/974.

All groups listed in this Warning should be considered in order to perform a complete search.

50/008 . . . (Applying strips or strings, e.g. tear strips or strings)

50/01 . . . (parallel to the direction of movement of the webs or the blanks)

50/02 . . . (perpendicular to the direction of movement of the webs or the blanks)

50/03 . . . (the webs or blanks remaining stationary during application of the strips or strings)

50/04 . . . (the webs or blanks moving during application of the strips or strings)

50/05 . . . (obliquely to the direction of movement of the webs or blanks or in an irregular path)

50/06 . . . [Applying closure elements to blanks, webs or boxes]

50/07 . . . [Applying button-and-string or washer like closures]

50/08 . . . [Applying hook-and-loop-type fasteners]

50/09 . . . Forming or attaching windows

WARNING

Group B31B 50/82 is incomplete pending reclassification of documents from B31B 50/74.

Group B31B 50/82 is also impacted by reclassification into group B31B 50/83.

All groups listed in this Warning should be considered in order to perform a complete search.

50/03 . . . Cutting window openings

WARNING

Group B31B 50/83 is incomplete pending reclassification of documents from groups B31B 50/74 and B31B 50/82.

All groups listed in this warning should be considered in order to perform a complete search.

50/04 . . . Forming or attaching means for filling or dispensing contents, e.g. valves or spouts

WARNING

Group B31B 50/84 is incomplete pending reclassification of documents from groups B31B 50/74 and B31B 50/81.

Group B31B 50/84 is also impacted by reclassification into groups B31B 50/85.

All groups listed in this Warning should be considered in order to perform a complete search.

50/05 . . . Applying patches or flexible valve inserts, e.g. applying film-like valves

WARNING

Group B31B 50/85 is incomplete pending reclassification of documents from groups B31B 50/74, B31B 50/81 and B31B 50/84.

All groups listed in this Warning should be considered in order to perform a complete search.
70/14 . . Cutting, e.g. perforating, punching, slitting or trimming (cutting window openings B31B 70/83)

**WARNING**

Group B31B 70/14 is impacted by reclassification into group B31B 70/83.

Groups B31B 70/14 and B31B 70/83 should be considered in order to perform a complete search.

70/142 . . . {using presses or dies}
70/144 . . . {using tools mounted on belts or chains}
70/146 . . . {using tools mounted on a drum}
70/148 . . . {Cutting-out portions from the sides of webs or sheets}
70/16 . . Cutting webs
70/18 . . . longitudinally
70/20 . . . Cutting sheets or blanks
70/25 . . . {Surface scoring}
70/252 . . . {using presses or dies}
70/254 . . . {using tools mounted on belts or chains}
70/256 . . . {using tools mounted on a drum}
70/26 . . Folding sheets, blanks or webs
70/261 . . . {involving transversely folding, i.e. along a line perpendicular to the direction of movement}
70/262 . . . {involving longitudinally folding, i.e. along a line parallel to the direction of movement}
70/266 . . . {involving gusset-forming}
70/28 . . . {around mandrels}
70/30 . . . {Moving mandrels}
70/36 . . . by continuously feeding them to stationary members, e.g. plates, ploughs or cores
70/44 . . . {by plungers moving through folding dies}
70/52 . . . by reciprocating or oscillating members other than plungers and dies, e.g. by fingers
70/56 . . . {by rotary members co-operating with blades}
70/58 . . . {by moving belts or chains}
70/60 . . Uniting opposed surfaces or edges; Taping

**WARNING**

Group B31B 70/60 is impacted by reclassification into groups B31B 70/61 - B31B 70/68.

All groups listed in this warning should be considered in order to perform a complete search.

70/61 . . . {by applying or securing strips or tape}

**WARNING**

Groups B31B 70/61 - B31B 70/68 are incomplete pending reclassification of documents from group B31B 70/60.

All groups listed in this warning should be considered in order to perform a complete search.

70/62 . . . by adhesives
70/626 . . . {Arrangements for permitting the glue to set}
70/628 . . . {Applying glue on moving webs to form tubular webs}
70/64 . . . by applying heat or pressure (to unite areas where adhesives are applied B31B 70/62)
70/642 . . . {using sealing jaws or sealing dies}

70/643 . . . {on piled sheets, e.g. sealing bags arranged in a pile}
70/644 . . . {Making seals parallel to the direction of movement, i.e. longitudinal sealing}
70/645 . . . {Making seals transversely to the direction of movement}
70/648 . . . {using tools mounted on belts or chains}
70/649 . . . {using tools mounted on a drum}
70/66 . . . by high-frequency electric heating
70/68 . . . by stitching, stapling or riveting
70/74 . . Auxiliary operations

**WARNING**

Group B31B 70/74 is impacted by reclassification into groups B31B 70/76 - B31B 70/988.

All groups listed in this warning should be considered in order to perform a complete search.

70/76 . . . {Moistening; Drying; Cooling; Heating}

**WARNING**

Group B31B 70/76 is incomplete pending reclassification of documents from group B31B 70/74.

Groups B31B 70/74 and B31B 70/76 should be considered in order to perform a complete search.

70/79 . . . {Coating; Impregnating; Waterproofing; Decoating}

**WARNING**

Group B31B 70/79 is incomplete pending reclassification of documents from group B31B 70/74.

Groups B31B 70/74 and B31B 70/79 should be considered in order to perform a complete search.

70/81 . . Forming or attaching accessories, e.g. opening devices, closures or tear strings

**WARNING**

Groups B31B 70/81, B31B 70/8137 are incomplete pending reclassification of documents from group B31B 70/74.

All groups listed in this warning should be considered in order to perform a complete search.

70/812 . . . {Applying patches, strips or strings on sheets or webs}
70/8122 . . . . {Applying patches}
70/8123 . . . . {Applying strips}
70/813 . . . . {Applying closures}
70/8131 . . . . {Making bags having interengaging closure elements}
70/8132 . . . . . {Applying the closure elements in the machine direction}
70/8133 . . . . . {Applying the closure elements in the cross direction}
70/8134 . . . . . {Applying strings; Making string-closed bags}
(the strings being applied in the machine direction)

(the strings being applied in the cross direction)

(the ends of the strings being attached to the side edges of the bags)

Forming or attaching windows

**WARNING**

Group B31B 70/82 is incomplete pending reclassification of documents from group B31B 70/74.-

Group B31B 70/82 is also impacted by reclassification into groups B31B 70/822, B31B 70/826 and B31B 70/83.-

All groups listed in this warning should be considered in order to perform a complete search.

(by making paper transparent or translucent; by applying transparent melt)

**WARNING**

Groups B31B 70/822, B31B 70/826 are incomplete pending reclassification of documents from group B31B 70/74 and B31B 70/82.-

All groups listed in this warning should be considered in order to perform a complete search.

[involving applying window patches]

Cutting window openings

**WARNING**

Group B31B 70/83 is incomplete pending reclassification of documents from groups B31B 70/14, B31B 70/74 and B31B 70/82.-

All groups listed in this warning should be considered in order to perform a complete search.

Forming or attaching means for filling or dispensing contents, e.g. valves or spouts

**WARNING**

Group B31B 70/84 is incomplete pending reclassification of documents from group B31B 70/74.-

Group B31B 70/84 is also impacted by reclassification into groups B31B 70/844, B31B 70/859.-

All groups listed in this warning should be considered in order to perform a complete search.

[Applying rigid valves, spouts, or filling tubes]

**WARNING**

Groups B31B 70/844 - B31B 70/859 are incomplete pending reclassification of documents from groups B31B 70/74 and B31B 70/84. All groups listed in this warning should be considered in order to perform a complete search.

Applying patches or flexible valve inserts, e.g. applying film-like valves

(by deforming the bag, e.g. stretching)

(involving turning the bags inside out)

Forming integral handles or mounting separate handles

**WARNING**

Groups B31B 70/86 - B31B 70/874 are incomplete pending reclassification of documents from group B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.

Mounting separate handles on bags, sheets or webs

[Applying handles on a moving web followed by longitudinal folding]

[Applying handles on a moving web followed by transverse folding]

[Applying handles on one side of a moving longitudinally folded web, e.g. after cutting a tubular web longitudinally: Applying handles on both sides of a moving web and folding this web longitudinally afterwards]

[Forming integral handles on bags]

[involving punching or cutting]

[involving application of reinforcement strips or patches; involving reinforcements obtained by folding]

**WARNING**

Group B31B 70/876 is incomplete pending reclassification of documents from groups B31B 70/008 and B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.

Printing; Embossing

**WARNING**

Groups B31B 70/88 - B31B 70/988 are incomplete pending reclassification of documents from group B31B 70/74. All groups listed in this warning should be considered in order to perform a complete search.

Delivering
singly or in succession
{by winding up}
{the bags being interconnected}
in an overlapping arrangement
in stacks or bundles
{involving folding of the bags}
{Stacking bags on wicket pins}
{Stacking bags by means of a rotary stacking drum}
{Assembling or block-forming of bags; Loading bags on a mandrel}
using hand tools

WARNING
Group B31B 70/99 is incomplete pending reclassification of documents from groups B31B 50/99 and 231B 2247/00.

Groups B31B 50/99, B31B 2247/00 and B31B 70/99 should be considered in order to perform a complete search.

2105/001. {made from laminated webs, e.g. including laminating the webs}

WARNING
Groups B31B 2105/001 - B31B 2105/0027 are incomplete pending reclassification of documents from group B31B 2105/000.

All groups mentioned should be considered in order to perform a complete search.

2105/002. {Making boxes characterised by the shape of the blanks from which they are formed}
2105/0022. . . {Making boxes from tubular webs or blanks, e.g. with separate bottoms, including tube or bottom forming operations}
2105/0024. . . {Making boxes having all side walls attached to the bottom}
2105/0025. . . {Making boxes by uniting two U-shaped blanks}
2105/0027. . . {Making boxes from blanks consisting of side wall panels integral with a bottom panel and additional side wall panels}

2110/00 Shape of rigid or semi-rigid containers

WARNING
Group B31B 2110/00 is impacted by reclassification into groups B31B 2110/10 - B31B 2110/40.

All groups mentioned should be considered in order to perform a complete search.

2110/10 . having a cross section of varying size or shape, e.g. conical or pyramidal

WARNING
Groups B31B 2110/10 - B31B 2110/40 are incomplete pending reclassification of documents from group B31B 2110/00.

All groups mentioned should be considered in order to perform a complete search.

2110/20 . having a curved cross section, e.g. circular
2110/30 . having a polygonal cross section
2110/35 . . rectangular, e.g. square
2110/40 . without sidewalls

2120/00 Construction of rigid or semi-rigid containers

WARNING
Group B31B 2120/00 is impacted by reclassification into groups B31B 2120/02 - B31B 2120/70.

All groups mentioned should be considered in order to perform a complete search.

2120/002 . {having contracted or rolled necks, having shoulders}

WARNING
Groups B31B 2120/002 - B31B 2120/70 are incomplete pending reclassification of documents from group B31B 2120/000.

All groups mentioned should be considered in order to perform a complete search.

2120/004 . {the bottom of which includes a rim projecting at the edges}
Indexing scheme associated with group B31B 70/00, relating to making of flexible containers

2150/00  Flexible containers made from sheets or blanks, e.g. from flattened tubes

**WARNING**

Group B31B 2150/00 is impacted by reclassification into groups B31B 2150/001 – B31B 2150/003, B31B 2170/00 and B31B 2170/30.

All groups mentioned should be considered in order to perform a complete search.

2150/001  .  (with square or cross bottom)

**WARNING**

Groups B31B 2150/001 – B31B 2150/20 are incomplete pending reclassification of documents from group B31B 2150/00.

All groups mentioned should be considered in order to perform a complete search.

2150/0012  .  [having their openings facing in the direction of movement]

2150/0014  .  [having their openings facing transversally to the direction of movement]

2150/0016  .  [made from already formed bags]

2150/002  .  [made joining superimposed sheets, e.g. with separate bottom sheets]

2150/003  .  [made from tubular sheets]

2150/10  .  the longitudinal axes of the containers being parallel to the direction in which the sheets or blanks are fed

2150/20  .  the longitudinal axes of the containers being perpendicular to the direction in which the sheets or blanks are fed

2155/00  Flexible containers made from webs

**WARNING**

Group B31B 2155/00 is impacted by reclassification into groups B31B 2155/001 – B31B 2155/003, B31B 2170/00 and B31B 2170/30.

All groups mentioned should be considered in order to perform a complete search.

2155/001  .  [by folding webs longitudinally]

**WARNING**

Groups B31B 2155/001 – B31B 2155/003 are incomplete pending reclassification of documents from group B31B 2150/00.

All groups mentioned should be considered in order to perform a complete search.

2155/0012  .  [having their openings facing in the direction of movement]

2155/0014  .  [having their openings facing transversally to the direction of movement]

2155/002  .  [by joining superimposed webs, e.g. with separate bottom webs]

2155/003  .  [starting from tubular webs]

2160/00  Shape of flexible containers

**WARNING**

Group B31B 2160/00 is incomplete pending reclassification of documents from groups B31B 2241/00 – B31B 2241/008.

Group B31B 2160/00 is also impacted by reclassification into groups B31B 2160/10 – B31B 2160/30.

All groups mentioned should be considered in order to perform a complete search.

2160/10  .  rectangular and flat, i.e. without structural provision for thickness of contents

**WARNING**

Group B31B 2160/10 is incomplete pending reclassification of documents from group B31B 2160/00.

Group B31B 2160/10 is also impacted by reclassification into groups B31B 2160/102 – B31B 2160/106.

All groups listed in this Warning should be considered in order to perform a complete search.

2160/102  .  [obtained from essentially rectangular sheets]

**WARNING**

Groups B31B 2160/102 – B31B 2160/106 are incomplete pending reclassification of documents from groups B31B 2160/00 and B31B 2160/10.

All groups listed in this Warning should be considered in order to perform a complete search.

2160/104  .  [obtained from rhombus shaped sheets]
Indexing scheme associated with group B31B70/00, relating to making of flexible containers

**B31B**

2160/106 . . [obtained from sheets cut from larger sheets or webs before finishing the bag forming operations]

2160/20 . . with structural provision for thickness of contents

**WARNING**

Groups B31B 2160/20 and B31B 2160/30 are incomplete pending reclassification of documents from B31B 2160/00.

All groups listed in this Warning should be considered in order to perform a complete search.

2160/30 . . pointed or tapered

2170/00 **Construction of flexible containers**

**WARNING**

Group B31B 2170/00 is incomplete pending reclassification of documents from groups B31B 2150/00 and B31B 2155/00.

Group B31B 2170/00 is also impacted by reclassification into groups B31B 2170/10 – B31B 2170/30.

All groups listed in this Warning should be considered in order to perform a complete search.

2170/10 . . interconnected

**WARNING**

Groups B31B 2170/10 – B31B 2170/20 are incomplete pending reclassification of documents from group B31B 2170/00.

Groups B31B 2170/00 - B31B 2170/20 should be considered in order to perform a complete search.

2170/20 . . having multi-layered walls, e.g. laminated or lined

2170/202 . . . [having liners applied in already made bags, e.g. including turning the bags inside out]

2170/204 . . . [involving folding a web about an already tubular web]

2170/30 . . having corrugated or pleated walls

**WARNING**

Groups B31B 2170/30 is incomplete pending reclassification of documents from groups B31B 2150/00, B31B 2155/00 and B31B 2170/00.

All groups listed in this warning should be considered in order to perform a complete search.

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2241/00 **Making bags or boxes intended for a specific use**

**WARNING**

Groups B31B 2241/00 – B31B 2241/008 are impacted by reclassification into group B31B 2160/00.

Groups B31B 2241/00 – B31B 2241/008 and B31B 2160/00 should be considered in order to perform a complete search.

2241/001 . . Making bottle carriers

2241/002 . . Making egg cartons

2241/003 . . Making cigarette boxes

2247/00 **Manual operations for making bags or boxes**

**WARNING**

Group B31B 2247/00 is impacted by reclassification into groups B31B 50/99 and B31B 70/99.

Groups B31B 2247/00, B31B 50/99 and B31B 70/99 should be considered in order to perform a complete search.

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