

Title (en)

Apparatus for pasting two or more plies for manufacturing tissue products

Title (de)

Vorrichtung zum Kleben von zwei oder mehr Schichten zur Herstellung von Gewebeprodukten

Title (fr)

Appareil pour le collage de deux ou plusieurs plis pour la fabrication de produits en tissu

Publication

**EP 2048283 A1 20090415 (EN)**

Application

**EP 08015030 A 20080826**

Priority

IT MI20071704 A 20070830

Abstract (en)

An apparatus for pasting two or more plies for manufacturing tissue products, has a first embossing roller which cooperates with a second embossing roller; the first embossing roller has a plurality of tips alternated with a plurality of continuous protrusions which have the same incision depth; the second roller has a plurality of tips alternated with a plurality of continuous protrusions which have the same incision depth, the arrangement of the tips and of the continuous protrusions of the first roller is reproduced identically and mirror-symmetrically on the second roller. According to another aspect of the invention, each of the two rollers has a plurality of tips separated by a plurality of recesses; the tips and the recesses are arranged on raised regions spaced by regions or compartments without tips; the raised regions provided with the tips form, in each roller, a pattern which is identical or different for each roller; the rollers cooperate so that at least two plies interposed between them, one of which is spread with paste, are bonded only in the regions of contact of two tips.

IPC 8 full level

**D21H 27/40** (2006.01)

CPC (source: EP)

**B31F 1/07** (2013.01); **D21H 27/20** (2013.01); **B31F 2201/0733** (2013.01); **B31F 2201/0738** (2013.01); **B31F 2201/0748** (2013.01); **B31F 2201/0761** (2013.01); **B31F 2201/0787** (2013.01)

Citation (applicant)

WO 2005033408 A2 20050414 - GEORGIA PACIFIC FRANCE [FR], et al

Citation (search report)

- [X] WO 2005033408 A2 20050414 - GEORGIA PACIFIC FRANCE [FR], et al
- [X] US 4483728 A 19841120 - BAUERNFEIND ROBERT N [US]
- [X] WO 0031342 A1 20000602 - PROCTER & GAMBLE [US]
- [A] EP 1319748 A1 20030618 - GEORGIA PACIFIC FRANCE [FR]
- [A] WO 2006136186 A1 20061228 - SCA HYGIENE PROD GMBH [DE], et al
- [A] EP 1321576 A1 20030625 - SCA HYGIENE PROD AB [SE]
- [A] WO 9325382 A1 19931223 - PROCTER & GAMBLE [US]

Cited by

ITMI20091952A1; US9205623B2; FR2946279A1; EP4032695A1; WO2012047992A1; WO2010135386A1; WO2010139759A1; WO2023217324A3; US11408129B2; US11732420B2; US12071729B2; US10132042B2; US10458069B2; US10472771B2; US10822745B2; US11725346B2; US8328984B2; US8377258B2; US8496783B2; US8758558B2; US9017515B2; US9326646B2; US9516978B2; US9516977B2; US10851499B2; US11427969B2; EP3677422B1

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

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AL BA MK RS

DOCDB simple family (publication)

**EP 2048283 A1 20090415**; **EP 2048283 B1 20150819**; **EP 2048283 B2 20220223**; ES 2547385 T3 20151005; ES 2547385 T5 20220510; IT MI20071704 A1 20090228; PL 2048283 T3 20151231; PL 2048283 T5 20220627

DOCDB simple family (application)

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