

Title (en)
Nonwoven material and process of manufacturing

Title (de)
Verbundvliesstoffmaterial und Verfahren zu seiner Herstellung

Title (fr)
Matériau non-tissé et procédé de fabrication

Publication
EP 1264561 B2 20090819 (DE)

Application
EP 02011653 A 20020531

Priority
DE 10127514 A 20010606

Abstract (en)
[origin: EP1264561A1] Laminated nonwoven fabric material in two layers, where the first layer comprises cellulosic fibers and thermoplastic fibers and the second layer comprises thermoplastic fibers. A laminated nonwoven fabric material (NFM) with at least two layers of NFM. The first layer comprises cellulosic fibers and optionally thermoplastic fibers and the second layer comprises further thermoplastic fibers, of melting point less than that of the NFM layer. At least two NFM layers are melted together and the second NFM layer has an embossed pattern on the surface turned away from the first layer. Independent claims are also included for: (1) the preparation of the laminated NFM, comprises formation of a first layer with cellulosic fibers and optionally first thermoplastic fibers; formation of the second layer with further thermoplastic fibers as above; arrangement of the layers; and application of pressure to the laminate formed, heating of this so that the fibers in the second layer are melted at least on the surface, so that a melt bond is formed between the fibers of the first and those of the second layer, and additional formation of a melt bond between the fibers of the second layer, with its resultant reinforcement; and (2) a two-layer cotton wool pad for skin care and cleaning and for cosmetic applications formed from a laminated NFM as above (claimed).

IPC 8 full level
A45D 40/00 (2006.01); **A61F 13/20** (2006.01); **D04H 1/02** (2006.01); **D04H 1/42** (2012.01); **D04H 1/425** (2012.01); **D04H 1/4266** (2012.01); **D04H 1/4374** (2012.01); **D04H 1/492** (2012.01); **D04H 1/541** (2012.01); **D04H 1/544** (2012.01); **D04H 1/55** (2012.01); **D04H 1/559** (2012.01); **D04H 13/00** (2006.01)

CPC (source: EP US)
A45D 40/00 (2013.01 - EP); **D04H 1/02** (2013.01 - EP); **D04H 1/425** (2013.01 - EP); **D04H 1/4266** (2013.01 - EP); **D04H 1/4291** (2013.01 - EP); **D04H 1/435** (2013.01 - EP); **D04H 1/4374** (2013.01 - EP); **D04H 1/492** (2013.01 - EP); **D04H 1/5412** (2020.05 - EP US); **D04H 1/5418** (2020.05 - EP US); **D04H 1/544** (2013.01 - EP); **D04H 1/55** (2013.01 - EP); **D04H 1/559** (2013.01 - EP); **D04H 13/00** (2013.01 - EP)

Citation (opposition)
Opponent :

- FR 2227370 A1 19741122 - UMA SEISHI KK [JP]
- FR 2352664 A1 19771223 - BUCKEYE CELLULOSE CORP [US]
- EP 0006264 A1 19800109 - BUCKEYE CELLULOSE CORP [US]
- EP 0926288 A1 19990630 - UNI CHARM CORP [JP]
- US 5494731 A 19960227 - FERESHTEHKHOU SAEED [US], et al
- EP 0685009 A1 19951206 - COROVIN GMBH [DE]
- EP 0070164 A2 19830119 - CHICOPEE [US]

Cited by
EP1721597A1; CN106192200A; EP1400224A1; CN111058188A; CN103620100A; EP2767627A1; FR2867067A1; EP1574208A1; US9732454B2; WO2012122214A1; WO03043551A1; US7081559B2; US7514071B2; US11779071B2; US9682512B2; US10131091B2; US10625472B2; US10138582B2; US10174447B2; US10982363B2; US10982364B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1264561 A1 20021211; EP 1264561 B1 20060621; EP 1264561 B2 20090819; EP 1264561 B9 20091118; AT E330505 T1 20060715; DE 10127514 A1 20030130; DE 50207253 D1 20060803

DOCDB simple family (application)
EP 02011653 A 20020531; AT 02011653 T 20020531; DE 10127514 A 20010606; DE 50207253 T 20020531