

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 A1 20021211 (DE)**

Application  
**EP 02011653 A 20020531**

Priority  
DE 10127514 A 20010606

Abstract (en)  
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).

Abstract (de)  
Die Erfindung betrifft ein Verbundvliesstoffmaterial für die Hautpflege und -reinigung und für kosmetische Zwecke mit wenigstens zwei Vliesstoffschichten, wobei die erste Vliesstoffschicht cellulosische Fasern und gegebenenfalls erste thermoplastische Fasern umfasst und wobei die zweite Vliesstoffschicht zweite thermoplastische Fasern umfasst, deren Schmelztemperatur geringer ist als diejenige der in der ersten Vliesstoffschicht gegebenenfalls vorgesehenen ersten thermoplastischen Fasern, und wobei die wenigstens zwei Vliesstoffschichten über Schmelzbindungen miteinander verbunden sind und die zweite Schicht auf ihrer der ersten Schicht abgewandten Oberfläche ein Prägemuster aufweist. <IMAGE>

IPC 1-7  
**A45D 40/00**; **A61F 13/20**; **D04H 1/02**; **D04H 1/42**; **D04H 13/00**

IPC 8 full level  
**A45D 40/00** (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 (search report)  
• [DA] EP 0826811 A2 19980304 - AHLSTROM LYSTIL SA [FR]  
• [DA] FR 2052089 A5 19710409 - RIETHMANN EUGENE  
• [DA] EP 0405043 A1 19910102 - FLAWA SCHWEIZ VERBAND WATTEFAB [CH]  
• [DA] US 5480699 A 19960102 - GERHARTL GERD [CH], et al  
• [A] EP 0441667 A2 19910814 - COATIVY RENE [FR]  
• [A] WO 9824621 A1 19980611 - WEYERHAEUSER CO [US], et al  
• [A] JP H10113222 A 19980506 - TORAY INDUSTRIES & PATENT ABSTRACTS OF JAPAN vol. 1998, no. 10 31 August 1998 (1998-08-31)  
• [A] US 4287251 A 19810901 - KING MARY K, et al

Cited by  
CN111058188A; EP1400224A1; EP1721597A1; CN106192200A; 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