

Title (en)

Method for adding a softening and /or debonding agent to a hydroentangled nonwoven material

Title (de)

Verfahren zur Zugabe von Weichmacher und/oder Entbindungsmittel zu einem hydrodynamisch vernadelten Vliesstoff

Title (fr)

Procédé pour ajouter un agent adoucissant et/ou déliant à un non-tissé lié par aiguilletage hydraulique

Publication

**EP 1548165 A1 20050629 (EN)**

Application

**EP 04029654 A 20041215**

Priority

SE 0303511 A 20031222

Abstract (en)

Method of adding a softening and/or debonding agent to a fiber web of a hydroentangled nonwoven material comprising cellulose pulp fibers. The softening and/or debonding agent is added in an inline manufacturing process of the hydroentangled nonwoven material, subsequent to the hydroentanglement of the nonwoven material. The softening and/or debonding agent is added by means of a size press or a foulard comprising a soaking step to soak the hydroentangled nonwoven material with the added softening and/or debonding agent, and a pressing step, which causes the added softening and/or debonding agent to penetrate and impregnate the hydroentangled nonwoven material.

IPC 1-7

**D04H 1/46**; **D06B 3/16**

IPC 8 full level

**D04H 1/46** (2006.01); **D04H 1/492** (2012.01); **D04H 3/11** (2012.01); **D06B 3/16** (2006.01); **D21H 21/24** (2006.01)

CPC (source: EP)

**D04H 1/492** (2013.01); **D04H 3/11** (2013.01); **D21H 21/24** (2013.01)

Citation (search report)

- [Y] WO 9719213 A1 19970529 - INT PAPER CO [US]
- [Y] US 2003213108 A1 20031120 - STRANDQVIST MIKAEL [SE]
- [A] DE 19846857 C1 20000302 - FREUDENBERG CARL FA [DE]
- [PA] WO 03106748 A1 20031224 - SCA HYGIENE PROD AB [SE]

Cited by

DE102008013817A1; DE102008018976A1; EP3367862A4; AU2015412753B2; CN102472004A; EP2845948A1; CN104947509A; US10260201B2; US10415190B2; US8029645B2; US8425722B2; WO2009024897A3; WO2011017522A3; US8056841B2; US8297543B2; US8623176B2; US8808501B2; US10513827B2; EP3367862B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1548165 A1 20050629**; SE 0303511 D0 20031222

DOCDB simple family (application)

**EP 04029654 A 20041215**; SE 0303511 A 20031222