

Title (en)  
HIGHLY FUNCTIONAL SPUNBONDED FABRIC MADE FROM PARTICLE-CONTAINING FIBRES AND METHOD FOR PRODUCING SAME

Title (de)  
HOCHFUNKTIONELLES SPINNVLIES AUS PARTIKELHALTIGEN FASERN SOWIE VERFAHREN ZUR ERZEUGUNG

Title (fr)  
NON-TISSÉ PAR FILATURE DIRECTE HAUTEMENT FONCTIONNEL, FORMÉ DE FIBRES RENFERMANT DES PARTICULES, ET PROCÉDÉ DE PRODUCTION CORRESPONDANT

Publication  
**EP 2616580 A1 20130724 (DE)**

Application  
**EP 11767163 A 20110913**

Priority  
• DE 102010045242 A 20100914  
• EP 2011004591 W 20110913

Abstract (en)  
[origin: WO2012034679A1] The invention relates to a highly functional spunbonded fabric made from fibres based on non-fusible polymers, which contain one or more functional additives. The fibres are interwoven and interlocked, are of different lengths having aspect ratios above 1.000 and form a firm fleece composite. Said fibres have a mean diameter of 0.1 to 500 micrometres and diameter variations within a fibre and/or among each other of at least 30%. In addition to the non-fusible polymers, the fibres contain, based on the total weight thereof, more than 40 wt % of functional additives in solid and/or liquid form, wherein the functional additives are finely distributed in the fibres. The spunbonded fabric is produced from a spinning solution that contains the non-fusible polymer dissolved in a direct solvent, and at least one functional additive. The spinning solution is pressed out of a spinneret, and the resulting polymer strands are drawn in the longitudinal direction to form filaments or fibres, stabilised and laid down to form a fleece fabric. The spunbonded fabrics can be used, for example, to produce clothing, technical textiles or as filters.

IPC 8 full level  
**D01D 5/14** (2006.01); **D01D 5/20** (2006.01); **D01F 1/10** (2006.01); **D01F 2/00** (2006.01); **D04H 3/007** (2012.01); **D04H 3/018** (2012.01); **D04H 3/16** (2006.01)

CPC (source: EP KR US)  
**D01D 5/14** (2013.01 - EP US); **D01F 1/10** (2013.01 - EP KR US); **D01F 2/00** (2013.01 - EP US); **D04H 1/724** (2013.01 - KR); **D04H 3/007** (2013.01 - EP US); **D04H 3/018** (2013.01 - EP US); **D04H 3/16** (2013.01 - EP KR US); **Y10T 442/61** (2015.04 - EP US)

Citation (search report)  
See references of WO 2012034679A1

Cited by  
CN106676757A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2012034679 A1 20120322**; AU 2011301355 A1 20120531; AU 2011301355 A8 20140220; AU 2011301355 B2 20140206; AU 2011301355 B8 20140220; BR 112012017019 A2 20160405; CN 102753746 A 20121024; CN 102753746 B 20140910; DE 112011100474 A5 20121213; DE 112011100474 B4 20211209; EP 2616580 A1 20130724; EP 2616580 B1 20140402; JP 2013515869 A 20130509; JP 5579870 B2 20140827; KR 101497360 B1 20150302; KR 20120113288 A 20121012; PL 2616580 T3 20140829; RU 2012130176 A 20140127; RU 2522186 C2 20140710; SI 2616580 T1 20140630; US 2012215148 A1 20120823

DOCDB simple family (application)  
**EP 2011004591 W 20110913**; AU 2011301355 A 20110913; BR 112012017019 A 20110913; CN 201180006455 A 20110913; DE 112011100474 T 20110913; EP 11767163 A 20110913; JP 2012545358 A 20110913; KR 20127023677 A 20110913; PL 11767163 T 20110913; RU 2012130176 A 20110913; SI 201130159 T 20110913; US 201113504567 A 20110913