

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

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Application
EP 11767163 A 20110913

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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.

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