

Title (en)
Highly stable light carpet backing and method for its production

Title (de)
Hochfester leichter Tuftingträger und Verfahren zu seiner Herstellung

Title (fr)
Support de tufting léger et très résistant et son procédé de fabrication

Publication
EP 1964956 A1 20080903 (DE)

Application
EP 07002061 A 20070131

Priority
EP 07002061 A 20070131

Abstract (en)
The fleece comprises a layer of melt-spun synthetic filaments consolidated by high-energy water jets. The novel feature is a small quantity of thermally-activated binder. This is applied as a thin layer on the fleece layer. The fleece is constructed as a three-layer system. The central layer is low-melting thermoplastic polymer binder and the two outer layers are synthetic filaments. The melting temperature of the polymer is preferably at least 20[deg] C below that of the synthetic filaments. The titer of the synthetic filaments is preferably 1.0-4.0 dtex. The fibers are polyester, especially polyethylene terephthalate and/or a polyolefin, especially polypropylene. The low-melting polymer is largely polyethylene, a copolymer with a significant proportion of polyethylene, a copolyester, a polyamide and/or a copolyamide. The low-melting polymer fraction is less than 7 wt %, preferably 1.5-5 wt% with respect to the total weight of backing. The low-melting polymer comprises spun or melt-blown fibers or fibrils. Two-component fibers are used, the low-melting component being the thermally-activated binder. In manufacture, the fleece is laid by a fleece-spinning process. The thin layer of binder is applied. Water-jetting is then followed by drying and thermal activation of the binder. Water-jetting is controlled to achieve a specific longitudinal strength of 4.3 N/5cm per g/m 2>. The specific initial longitudinal modulus at 5% extension is at least 0.45 g/5cm per g/m 2>. The fibers or fibrils are deposited by air-laying or melt-blowing. An independent claim is included for the corresponding method of manufacture.

Abstract (de)
Es wird ein hochfester leichter Tuftingträger aus Spinnvlies, insbesondere zur Verwendung als primärer oder sekundärer Teppichrücken, umfassend wenigstens eine Lage aus schmelzgesponnenen synthetischen Filamenten, welche mittels energiereicher Wasserstrahlen verfestigt sind, beschrieben, welcher dadurch gekennzeichnet ist, dass er eine geringe Menge eines thermisch aktivierbarem Bindemittels enthält, welches in Form von wenigstens einer dünnen Schicht auf die Lage aus schmelzgesponnenen Filamenten aufgebracht ist.

IPC 8 full level
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CPC (source: EP US)
D01D 5/0985 (2013.01 - US); **D04H 3/011** (2013.01 - US); **D04H 3/11** (2013.01 - EP US); **D04H 3/12** (2013.01 - EP US); **D04H 3/14** (2013.01 - US); **D04H 13/00** (2013.01 - EP US); **Y10T 428/23979** (2015.04 - EP US); **Y10T 442/681** (2015.04 - EP US)

Citation (search report)
• [X] WO 2005047585 A1 20050526 - FLEISSNER GMBH [DE], et al
• [A] US 2004084134 A1 20040506 - TAI JUNG CHI [TW]

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EP1988204A3; AU2008201959B2; EP1988204A2

Designated contracting state (EPC)
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Designated extension state (EPC)
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DOCDB simple family (publication)
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