

Title (en)  
Thread for the production of a cutting and abrasion resistant textile surface

Title (de)  
Faden für die Herstellung einer schnitt- und abriebfesten Textiloberfläche

Title (fr)  
Fil destiné à la confection d'une surface textile résistant à la coupure et à l'abrasion

Publication  
**EP 1881095 A1 20080123 (FR)**

Application  
**EP 07356080 A 20070614**

Priority  
FR 0606689 A 20060721

Abstract (en)  
The yarn for making up a cut-resistant and abrasion-resistant textile surface using spun high-tenacity polyamide staple fibers. The tenacity of polyamide staple fibers is greater than 4.5 cN/dtex and a length of the fibers is 40-65 mm. The fibers are converted by cracking, cutting, carding, drawing or cottonizing. A modulus of the yarn is greater than 10 GPa, and a total yarn count is 2.5-50 Nm. A proportion of high-tenacity polyamide is 15-85% of a total weight of the entire yarn, and a fineness of the high-tenacity polyamide fibers is 0.5-8 dtex. The yarn for making up a cut-resistant and abrasion-resistant textile surface using spun high-tenacity polyamide staple fibers. The tenacity of polyamide staple fibers is greater than 4.5 cN/dtex and a length of the fibers is 40-65 mm. The fibers are converted by cracking, cutting, carding, drawing or cottonizing. A modulus of the yarn is greater than 10 GPa, and a total yarn count is 2.5-50 Nm. A proportion of high-tenacity polyamide is 15-85% of a total weight of the entire yarn, and a fineness of the high-tenacity polyamide fibers is 0.5-8 dtex. A proportion of textured polyamide is 5-30% of the total weight of the entire yarn. The yarn is produced in a form of a primary yarn, where a twist coefficient of the primary yarn is 30-90, and a twist yarn, where a twist coefficient of the twist yarn is 25-85. An independent claim is included for a textile surface.

Abstract (fr)  
Fil destiné à la confection d'une surface textile résistant à la coupure et à l'abrasion, caractérisé en ce qu'il est obtenu par filature de filés de fibres de polyamide Haute Ténacité, dont la ténacité est supérieure à 4,5 cN/dTex et dont la longueur des fibres est comprise entre 40 et 170 mm.

IPC 8 full level  
**D02G 3/44** (2006.01)

CPC (source: EP US)  
**D02G 3/442** (2013.01 - EP US); **Y10T 428/29** (2015.01 - EP US); **Y10T 428/2904** (2015.01 - EP US); **Y10T 428/2913** (2015.01 - EP US); **Y10T 428/298** (2015.01 - EP US)

Citation (search report)

- [A] US 4918912 A 19900424 - WARNER GRANT H [US]
- [A] EP 1297205 A2 20030402 - DU PONT [US]
- [A] US 2004148921 A1 20040805 - GUEVEL JEAN [FR], et al
- [A] EP 0962313 A1 19991208 - GORE W L & ASS GMBH [DE]
- [A] US 2003037530 A1 20030227 - ZHU REIYAO [US]
- [A] US 6829881 B1 20041214 - MANTEN JOHANNES [DE]

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 LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1881095 A1 20080123**; **EP 1881095 B1 20100120**; AT E455884 T1 20100215; DE 602007004384 D1 20100311; ES 2338176 T3 20100504; FR 2904009 A1 20080125; FR 2904009 B1 20080912; JP 2008025092 A 20080207; US 2008032131 A1 20080207; US 7485363 B2 20090203

DOCDB simple family (application)  
**EP 07356080 A 20070614**; AT 07356080 T 20070614; DE 602007004384 T 20070614; ES 07356080 T 20070614; FR 0606689 A 20060721; JP 2007188025 A 20070719; US 78140007 A 20070723