

Title (en)

MULTI-LENGTH, MULTI-DENIER, MULTI-CROSS SECTION FIBER BLEND YARN

Title (de)

FASERMISCHUNGSGARNE MIT MEHREREN LÄNGEN, MEHREREN DENIER UND MEHREREN QUERSCHNITTEN

Title (fr)

FIL DE MÉLANGE DE FIBRES À MULTIPLES LONGUEURS, MULTIPLES DENIERS ET MULTIPLES SECTIONS TRANSVERSALES

Publication

EP 3746588 A4 20220316 (EN)

Application

EP 19748287 A 20190131

Priority

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- US 201862746619 P 20181017
- US 201916262234 A 20190130
- US 2019015996 W 20190131

Abstract (en)

[origin: US2019233982A1] A yarn disclosed that is formed of a blend of polyester fibers customized by three parameters (1) a combination of polyester staple fibers with staple lengths of 1.5 inches, 1.25 inches, 1.0 inch and 0.75 inch; (2) a combination of polyester staple fibers with staple deniers (tex, fineness) of 1.0 dpf, 1.2 dpf, and 1.5 dpf; and (3) a combination of polyester staple fibers with at least two different staple cross sections.

IPC 8 full level

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CPC (source: EP US)

D01G 1/04 (2013.01 - EP); **D02G 3/04** (2013.01 - EP); **D02G 3/045** (2013.01 - US); **D02G 3/24** (2013.01 - US); **D02J 3/02** (2013.01 - US); **D10B 2331/04** (2013.01 - EP US); **D10B 2401/02** (2013.01 - EP)

Citation (search report)

- [Y] US 5188892 A 19930223 - GRINDSTAFF TEDDY H [US]
- [Y] US 4384450 A 19830524 - SAWYER LINDA C
- [Y] US 3965664 A 19760629 - GOETTI HANS, et al
- [X] US 4538490 A 19850903 - BECKER CAROL L [US]
- [AD] US 4497231 A 19850205 - DURRETT VAN D [US]
- [A] US 3831481 A 19740827 - WILLIAMS R, et al
- See also references of WO 2019152615A1

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DOCDB simple family (application)

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