

Title (en)

STRETCH YARNS AND FABRICS WITH MULTIPLE ELASTIC YARNS

Title (de)

STRETCHGARNE UND STOFFE MIT MEHREREN ELASTISCHEN GARNEN

Title (fr)

FILS EXTENSIBLES ET TISSUS AVEC DE MULTIPLES FILS ÉLASTIQUES

Publication

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Application

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Priority

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- EP 21191383 A 20131230
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- US 2013078237 W 20131230

Abstract (en)

Included herein is an articles and methods including a core spun yarn. The core spun yarn includes a sheath of hard fibers and two sets of elastic fibers wherein the sets of elastic fibers have different properties. The properties may differ in one or more ways such as having a different denier, composition or draft. One or both of the sets of elastic fibers can be pre-covered.

IPC 8 full level

D03D 15/56 (2021.01)

CPC (source: EP US)

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Y10T 428/2936 (2015.01 - EP US); **Y10T 442/3008** (2015.04 - EP US)

Citation (applicant)

- US 4470250 A 19840911 - ARENZ GERD [DE], et al
- US 4998403 A 19910312 - BAILEY RAY [US]
- US 7134265 B2 20061114 - SHIGEMURA YUKIHIRO [JP]
- US 6848151 B2 20050201 - BAKKER WILLEM [FR], et al
- US 2008268734 A1 20081030 - THARPE RALPH B [US], et al
- US 2008318485 A1 20081225 - CHENG CHI PING [CN]

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CN 105189841 A 20151223; CN 112410964 A 20210226; EP 2946032 A1 20151125; EP 2946032 A4 20160803; EP 2946032 B1 20220518;
EP 3943650 A1 20220126; EP 3943650 B1 20240228; EP 4382649 A2 20240612; EP 4382649 A3 20241002; JP 2016507669 A 20160310;
JP 2019167665 A 20191003; JP 6913436 B2 20210804; JP 7015273 B2 20220202; KR 102158057 B1 20201026; KR 20150105996 A 20150918;
TW 201441439 A 20141101; TW I649470 B 20190201; US 2015354101 A1 20151210; US 2016362819 A1 20161215

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EP 13871847 A 20131230; EP 21191383 A 20131230; EP 24158195 A 20131230; JP 2015553745 A 20131230; JP 2019092078 A 20190515;
KR 20157021786 A 20131230; TW 103101305 A 20140114; US 201314761238 A 20131230; US 201615239267 A 20160817