

Title (en)  
STRETCH YARNS AND FABRICS WITH MULTIPLE ELASTIC YARNS

Title (de)  
ELASTISCHE GARNE UND STOFFE MIT MEHREREN ELASTISCHEN GARNEN

Title (fr)  
FILS EXTENSIBLES ET TISSUS AYANT DE MULTIPLES FILS ÉLASTIQUES

Publication  
**EP 3943650 A1 20220126 (EN)**

Application  
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Priority  
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• US 2013078237 W 20131230

Abstract (en)  
Included herein is an article and method including a core spun yarn. The core spun yarn includes a sheath of hard fibers and two sets of spandex core fibers wherein the sets of spandex fibers have different properties. The properties may differ in one or more ways such as having a different denier or draft. One or both of the sets of elastic fibers is pre-covered.

IPC 8 full level  
**D02G 3/04** (2006.01); **D02G 3/32** (2006.01); **D03D 15/56** (2021.01)

CPC (source: EP US)  
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Citation (applicant)  
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• US 4998403 A 19910312 - BAILEY RAY [US]  
• US 7134265 B2 20061114 - SHIGEMURA YUKIHIRO [JP]  
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Citation (search report)  
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• [A] JP 2008297646 A 20081211 - KURASHIKI BOSEKI KK

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DOCDB simple family (publication)  
**WO 2014113207 A1 20140724; WO 2014113207 A9 20141204**; BR 112015016987 A2 20170711; BR 112015016987 B1 20220419; 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; 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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**US 2013078237 W 20131230**; BR 112015016987 A 20131230; CN 201380074782 A 20131230; CN 202011012211 A 20131230; 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