

Title (en)
CONFORMABLE MICROPOROUS FIBER AND WOVEN FABRICS CONTAINING SAME

Title (de)
ANPASSBARE MIKROPORÖSE FASER UND VLIESTOFF DAMIT

Title (fr)
FIBRE MICROPOREUSE CONFORMABLE ET ÉTOFFES TISSÉES LA CONTENANT

Publication
EP 3047059 A1 20160727 (EN)

Application
EP 14758459 A 20140818

Priority
• US 201314029250 A 20130917
• US 2014051420 W 20140818

Abstract (en)
[origin: US2015079865A1] Expanded polytetrafluoroethylene (ePTFE) monofilament fibers and woven fabrics formed from the ePTFE fibers are provided. The ePTFE fibers have a substantially rectangular configuration, a density less than about 1.0 g/cc, and an aspect ratio greater than 15. Additionally, the ePTFE fibers are microporous and have a node and fibril structure. The ePTFE fiber may be woven into a fabric without first twisting the fiber. A polymer membrane and/or a textile may be laminated to the woven fabric to produce a laminated article. The ePTFE woven fabric simultaneously possesses high moisture vapor transmission (highly breathable) and high water entry pressure (water resistant). The woven fabric is quiet, soft, and drapable, making it especially suitable for use in garments, gloves and footwear applications. Treatments may be provided to the surface of the ePTFE fiber and/or the woven fabric to impart one or more desired functionality, such as, for example, oleophobicity.

IPC 8 full level
D03D 1/00 (2006.01); **D03D 15/58** (2021.01); **D01F 6/12** (2006.01); **D03D 13/00** (2006.01)

CPC (source: CN EP KR RU US)
A41D 19/0006 (2013.01 - KR US); **A41D 31/102** (2019.02 - EP KR US); **A43B 7/125** (2013.01 - KR US); **D01D 5/247** (2013.01 - CN EP KR US); **D01D 5/253** (2013.01 - CN EP KR US); **D01F 6/12** (2013.01 - CN EP KR RU US); **D03D 1/00** (2013.01 - RU); **D03D 1/0035** (2013.01 - CN EP KR US); **D03D 13/00** (2013.01 - RU); **D03D 13/008** (2013.01 - CN EP KR US); **D03D 15/37** (2021.01 - KR); **D03D 15/46** (2021.01 - CN EP KR US); **D06M 13/236** (2013.01 - CN KR); **A41D 2500/20** (2013.01 - KR US); **D06M 2101/22** (2013.01 - CN KR); **D10B 2321/042** (2013.01 - CN EP KR US); **D10B 2401/021** (2013.01 - KR); **D10B 2501/04** (2013.01 - CN EP KR US); **D10B 2501/041** (2013.01 - KR); **D10B 2501/043** (2013.01 - KR); **Y10T 428/2922** (2015.01 - EP US); **Y10T 428/2935** (2015.01 - EP US); **Y10T 428/2975** (2015.01 - EP US); **Y10T 442/227** (2015.04 - EP US); **Y10T 442/3106** (2015.04 - EP US)

Designated contracting state (EPC)
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DOCDB simple family (application)
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