

Title (en)  
TEXTILE ITEM OF CLOTHING EQUIPPED WITH A BALLISTIC PROTECTION

Title (de)  
TEXTILES BEKLEIDUNGSSTÜCK MIT EINER BALLISTISCHEN SCHUTZAUSRÜSTUNG

Title (fr)  
ARTICLE VESTIMENTAIRE TEXTILE ÉQUIPÉ D'UNE PROTECTION BALISTIQUE

Publication  
**EP 3388776 B1 20200304 (DE)**

Application  
**EP 18176424 A 20150727**

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• EP 2015067140 W 20150727

Abstract (en)  
[origin: CA2956580A1] The invention relates to a textile item of clothing (100, 200, 300, 400, 500, 600, 700, 800) equipped for ballistic protection. The textile item of clothing comprises a knitted fabric. Said knitted fabric has a plurality of differently protected zones (1, 1a, 2, 3, 3a). At least two different zones (1, 1a, 2, 3, 3a) are interconnected without a seam. According to the invention, at least one first zone (1) is formed from a yarn (5) that inhibits the penetration of fragments.

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Citation (opposition)  
Opponent : Blücher GmbH (DE)  
• WO 2010108133 A1 20100923 - WARWICK MILLS INC [US], et al  
• WO 2014060094 A1 20140424 - FREIER KATRIN [DE]  
• EP 2177119 A2 20100421 - HEXONIA GMBH [DE]  
• DE 102012110104 A1 20140612 - BLUECHER GMBH [DE]  
• US 6961958 B1 20051108 - SEITZINGER KYLE [US]  
• DE 202013100788 U1 20130311 - HEXONIA GMBH [DE]  
• EP 2199727 A1 20100623 - PPS [NL], et al  
• US 7636948 B1 20091229 - CRYE CALEB CLARK [US], et al  
• US 8176569 B2 20120515 - ROCK MOSHE [US], et al  
• US 2012144542 A1 20120614 - EVANS LINDSAY M [US], et al  
• WO 2006096981 A1 20060921 - MED ENG SYSTEMS INC [CA], et al  
• WO 2007047101 A1 20070426 - SUPREME ELASTIC CORP [US], et al  
• DE 10338029 A1 20050407 - INFINEON TECHNOLOGIES AG [DE]  
• US 7434423 B1 20081014 - REID JR LAWRENCE G [US], et al  
• US 2014201878 A1 20140724 - BALLESTEROS CASAS CAROLINA [CO]  
• EP 2233621 A1 20100929 - KOBLEDER STRICKMODE GMBH & CO [AT], et al  
• US 2007271965 A1 20071129 - KOLMES NATHANIEL [US], et al  
• WO 2014084950 A2 20140605 - KOLMES MATTHEW [US], et al  
• US 2012117700 A1 20120517 - HOWELL ANDREW RHYS [GB], et al  
• GB 2493734 A 20130220 - BCB INT LTD [GB]  
• WO 2011140487 A2 20111110 - WINDISCH THERESA A [US], et al  
• WO 0045118 A2 20000803 - SAFARI LAND LTD INC [US], et al  
• DE 102011055154 A1 20120510 - HESCH ROLF DIETER [CH]  
• DE 19743074 A1 19990401 - STOLL & CO H [DE]  
• US 6044493 A 20000404 - POST DAVID G [US]  
• US 2004016043 A1 20040129 - UNO HIDEKAZU [JP], et al  
• US 2007144221 A1 20070628 - SYTZ RONALD M [US]  
• US 2010275341 A1 20101104 - SWEENEY SEAN [US], et al  
• WO 2010094368 A1 20100826 - BLUECHER GMBH [DE], et al  
• US 5619748 A 19970415 - NELSON JEFF S [US], et al  
• EP 3132227 B1 20180718 - BLUECHER GMBH [DE]  
• US 2011167545 A1 20110714 - GARCIA ALEJANDRO [US], et al  
• US 2004011087 A1 20040122 - REBOUILLAT SERGE [FR], et al  
• US 2013254971 A1 20131003 - GALLUZZO GEORGE [CA], et al  
• US 2434809 A 19480120 - BRADFORD NORTHRUP HAROLD

Cited by  
DE102020126113A1; WO2022073763A1

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**DE 102014110623 A1 20160128**; CA 2956580 A1 20160204; DE 202014010687 U1 20160518; DK 3175199 T3 20190506; DK 3388776 T3 20200602; DK 3480550 T3 20211011; EP 3175199 A1 20170607; EP 3175199 B1 20190206; EP 3388776 A1 20181017;

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