

Title (en)
Ballistic protective device

Title (de)
Kugelsichere Schutzvorrichtung

Title (fr)
Dispositif de protection balistique

Publication
EP 2063214 A1 20090527 (FR)

Application
EP 08169725 A 20081121

Priority
FR 0708220 A 20071123

Abstract (en)

The device has three synthetic fabric layers (31-33) forming reinforcements of a single piece obtained by transfer molding of phenolic resin, where the device is constituted by 30 percentages of the resin and 70 percentages of fabrics. The layer (32) includes a fabric with glass fibers crossed with carbon fibers. The fabric of the layer (33) includes a mesh that is fine than that of the layers (31, 32), where each layer includes a stack of fabric layers. The layer (33) includes thickness that is half of thickness of the layer (32).

Abstract (fr)

La présente invention concerne un dispositif de protection balistique. Le dispositif comporte au moins trois couches (31, 32, 33) de tissus synthétiques formant les renforts d'une même pièce obtenue par moulage par transfert de résine, la couche du milieu (32) comportant un tissu comportant des fibres de verres croisées avec des fibres de carbone. L'invention s'applique par exemple pour la protection de véhicules contre des agressions de type balistique.

IPC 8 full level
F41A 3/54 (2006.01); **F41A 3/44** (2006.01); **F41A 3/64** (2006.01); **F41A 5/02** (2006.01)

CPC (source: EP US)
F41H 5/0485 (2013.01 - EP US); **Y10T 428/24124** (2015.01 - EP US); **Y10T 442/2623** (2015.04 - EP US)

Citation (applicant)

WO 9409336 A1 19940428 - ALLIED SIGNAL INC [US]

Citation (search report)

- [XY] US 6107220 A 20000822 - POPPER PETER [US], et al
- [Y] US 2003228815 A1 20031211 - BHATNAGAR ASHOK [US], et al
- [Y] EP 0122857 A1 19841024 - MORICEAU DANIEL [FR], et al
- [Y] GB 2253589 A 19920916 - GENTEX CORP [US]
- [Y] GB 2250470 A 19920610 - SHRINEMARK LIMITED [GB]
- [A] WO 9409336 A1 19940428 - ALLIED SIGNAL INC [US]

Cited by
CN104011274A

Designated contracting state (EPC)
DE DK GB IT NL NO

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2063214 A1 20090527; EP 2063214 B1 20110608; FR 2924210 A1 20090529; FR 2924210 B1 20130705; US 2009155523 A1 20090618; US 7846854 B2 20101207

DOCDB simple family (application)
EP 08169725 A 20081121; FR 0708220 A 20071123; US 27578808 A 20081121