

Title (en)
Composite armor panel and manufacturing method therefor

Title (de)
Verbundpanzerplatte und Verfahren zur Herstellung

Title (fr)
Plaque de blindage composite et son procédé de fabrication

Publication
EP 0843149 A1 19980520 (EN)

Application
EP 96308166 A 19961112

Priority
EP 96308166 A 19961112

Abstract (en)
The invention provides a composite armor material for absorbing and dissipating kinetic energy from high velocity, armor-piercing projectiles, comprising a panel consisting essentially of a single internal layer of high density ceramic pellets having an Al₂O₃ content of at least 85% and a specific gravity of at least 2.5, said pellets being directly bound and retained in panel form by a solidified material which is elastic at a temperature below 250 DEG C, the majority of said pellets each having a major axis in the range of about 3-12 mm, and being bound by said solidified material in a plurality of superposed rows, wherein a majority of each of said pellets is in contact with at least 4 adjacent pellets, and the total weight of said panel does not exceed 45 kg/m². <IMAGE>

IPC 1-7
F41H 5/04

IPC 8 full level
F41H 5/04 (2006.01)

CPC (source: EP)
F41H 5/0414 (2013.01); **F41H 5/0492** (2013.01)

Citation (search report)
• [YD] US 5361678 A 19941108 - ROOPCHAND BRIJMOHAN J [US], et al
• [YD] GB 1081464 A 19670831 - FELDMUEHLE AG
• [Y] FR 1566448 A 19690509
• [YD] US 4061815 A 19771206 - POOLE JR ROBERT E J
• [YD] GB 1352418 A 19740508 - FELDMUEHLE ANLAGEN PROD
• [YD] US 3705558 A 19721212 - MCDUGAL JOHN A, et al
• [YD] GB 2272272 A 19940511 - T & N TECHNOLOGY LTD [GB]
• [XDA] FR 2711782 A1 19950505 - CREUSOT LOIRE [FR], et al
• [A] FR 2559254 A1 19850809 - PICARD [FR]
• [A] DE 3507216 A1 19860904 - RHEINMETALL GMBH [DE]
• [A] DE 3228264 A1 19851205 - APPRICH HARRY

Cited by
EP0959321A1; EP2146178A3; DE102005013660A1; US6624106B2; EP1737653A4; US7603939B2; EP2023072A1; US7543523B2; WO9953260A1; WO9950612A1; WO9960327A1; WO2006103431A1; US8833229B2; EP2426454A2; US8438963B2; US7383762B2; WO0229351A1; EP2071272A2; EP1705453A1; US7117780B2; US8281700B2; EP0942255B1; EP1080337B2; EP1166031A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0843149 A1 19980520; EP 0843149 B1 19980826; AT E170285 T1 19980915; DE 69600574 D1 19981001; DE 69600574 T2 19990617; DK 0843149 T3 19990525; ES 2124067 T3 19990116

DOCDB simple family (application)
EP 96308166 A 19961112; AT 96308166 T 19961112; DE 69600574 T 19961112; DK 96308166 T 19961112; ES 96308166 T 19961112