

Title (en)

Composite radar absorbing material and use of such a material

Title (de)

Radarabsorbierendes Verbundmaterial und dessen Verwendung

Title (fr)

Matériau composite structural absorbant les ondes radar et utilisation d'un tel matériau

Publication

EP 0924798 B1 20050126 (FR)

Application

EP 98402984 A 19981130

Priority

FR 9715681 A 19971211

Abstract (en)

[origin: EP0924798A1] A composite structural material, designed to absorb radar waves at frequencies of 8 - 18, 35 and 94 GHz. The composite structural material consists of at least three layers (3,4,5) of dielectric and nonmagnetic materials - an outer low reflective and low loss layer with an actual dielectric constant of about 3 to promote penetration of incident radar waves, an intermediate layer (4) with a dielectric constant of about 5, and an inner layer (5) filled with electrically conductive particles and having an actual dielectric conductivity of 15-20. The structure has an overall thickness of 4-10 mm, with the outer layer being 1.5-4.0 mm thick, the intermediate one 0.5-2.5 mm and the inner one 1.5-3.5 mm, with conductive particles in the form of carbon grains under 0.1 mm in diameter and in a proportion of less than 10 wt.%. The material is able to withstand a pressure of the order of 1 tonne/cm<2> and has a radar wave attenuation of over 10 dB.

IPC 1-7

H01Q 17/00

IPC 8 full level

H01Q 1/42 (2006.01); **H01Q 17/00** (2006.01)

CPC (source: EP US)

H01Q 1/422 (2013.01 - EP US); **H01Q 17/00** (2013.01 - EP US); **H01Q 17/004** (2013.01 - EP US); **H01Q 17/008** (2013.01 - EP US)

Citation (examination)

DE 3117245 A1 19821118 - BAYER AG [DE]

Cited by

EP1950835A3; CN105383130A

Designated contracting state (EPC)

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