

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)

AT BE CH DE DK ES FI GB GR IE IT LI NL PT SE

DOCDB simple family (publication)

**EP 0924798 A1 19990623**; **EP 0924798 B1 20050126**; AT E288139 T1 20050215; CA 2254314 A1 19990611; CA 2254314 C 20060808; DE 69828759 D1 20050303; DE 69828759 T2 20060518; ES 2232924 T3 20050601; FR 2772520 A1 19990618; FR 2772520 B1 20000114; US 6111534 A 20000829

DOCDB simple family (application)

**EP 98402984 A 19981130**; AT 98402984 T 19981130; CA 2254314 A 19981210; DE 69828759 T 19981130; ES 98402984 T 19981130; FR 9715681 A 19971211; US 20097598 A 19981130