

Title (en)
A STRUCTURAL COMPOSITE MATERIAL FOR ACOUSTIC DAMPING

Title (de)
STRUKTURELLES VERBUNDMATERIAL FÜR SCHALLDÄMPFUNG

Title (fr)
MATERIAU COMPOSITE STRUCTUREL POUR ISOLATION ACOUSTIQUE

Publication
EP 1620255 A1 20060201 (EN)

Application
EP 04731403 A 20040506

Priority
• GB 2004001962 W 20040506
• GB 0310450 A 20030507

Abstract (en)
[origin: GB2401346A] A composite material (10) for acoustical or mechanical damping comprises a plurality of layers of fibrous material (12) embedded in a solid material (14). The solid material layers are interspersed by layers of high hysteretic loss material such as viscoelastic polymer film (24) which may be continuous or perforated. The solid material may comprise epoxy, polyester, phenolic, vinyl ester or polyurethane resin. The viscoelastic film may comprise polyurethane, polyester or polyethylene. Applications include automotive dashboards and other body parts, rudders, turbine blades, vehicle transmission shafts, magneto-resonance imaging housing, aircraft parts, housing for other equipment, damping oscillations in automatic systems, changing the load response and geometry response of structures, powder delivery systems and reduction of noise in transport.

IPC 1-7
B32B 3/24; B32B 5/28

IPC 8 full level
B32B 3/10 (2006.01); **B32B 5/26** (2006.01); **B32B 5/28** (2006.01); **F16F 1/366** (2006.01); **F16F 1/377** (2006.01); **F16F 9/30** (2006.01); **G10K 11/168** (2006.01)

CPC (source: EP US)
B32B 3/10 (2013.01 - EP US); **B32B 3/266** (2013.01 - US); **B32B 5/26** (2013.01 - EP US); **B32B 5/28** (2013.01 - EP US); **B32B 27/12** (2013.01 - US); **B32B 27/40** (2013.01 - US); **F16F 1/366** (2013.01 - EP US); **F16F 1/377** (2013.01 - EP US); **F16F 9/30** (2013.01 - EP US); **G10K 11/168** (2013.01 - EP US); **B32B 2260/023** (2013.01 - US); **B32B 2260/046** (2013.01 - US); **B32B 2262/101** (2013.01 - US); **B32B 2307/10** (2013.01 - US); **Y10T 428/24924** (2015.04 - EP US)

Citation (search report)
See references of WO 2004098870A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
GB 0310450 D0 20030611; **GB 2401346 A 20041110**; **GB 2401346 B 20050413**; CN 1784300 A 20060607; EP 1620255 A1 20060201; JP 2006525147 A 20061109; US 2007071957 A1 20070329; WO 2004098870 A1 20041118

DOCDB simple family (application)
GB 0310450 A 20030507; CN 200480011983 A 20040506; EP 04731403 A 20040506; GB 2004001962 W 20040506; JP 2006506226 A 20040506; US 55410804 A 20040506