

Title (en)
THERMOSETTING RESIN-FIBER COMPOSITE AND METHOD AND APPARATUS FOR THE MANUFACTURE THEREOF

Title (de)
WÄRMEHÄRTENDES HARZFASERVERBUNDETEIL SOWIE VERFAHREN UND GERÄT ZU DESSEN HERSTELLUNG

Title (fr)
COMPOSITE FIBRE-RESINE THERMODURCISSABLE AINSI QUE PROCEDE ET APPAREIL DE FABRICATION ASSOCIES

Publication
EP 1358214 A2 20031105 (EN)

Application
EP 02709345 A 20020207

Priority
• IT MI20010236 A 20010207
• US 0203295 W 20020207

Abstract (en)
[origin: WO02070599A2] The invention relates to composite materials of construction comprising thermosetting resins and fibrous reinforcing or filling agents therefore as well as methods for the fabrication thereof. The thermosetting resin composition comprises a particulate thermosetting phenol-aldehyde resin; and a particulate curing agent for the thermosetting resin. The curing agent is encapsulated in a water insoluble thermoplastic resin having a softening point higher than, (1) the melting point of said thermosetting resin and, (2) the temperature at which said thermosetting resin flows on a solid substrate. The encapsulating thermoplastic resin also is dissolvable in the thermosetting resin by heating said curing agent capable of curing said thermosetting resin upon melting of the encapsulating thermoplastic resin and release thereof. The phenol-aldehyde resin is a novolak formed by condensation of a phenol component comprising at least one bifunctional phenol with at least one aldehyde component represented by the formula: R-CHO wherein R represents a hydrogen atom, a methyl group or a halogenated methyl group.

IPC 1-7
C08L 61/06; **C08K 9/10**; **C08J 3/24**; **C08B 5/00**; **C08L 61/10**; **C08G 8/10**; **D04H 1/60**; **D04H 1/62**

IPC 8 full level
C08G 8/10 (2006.01); **C08L 61/06** (2006.01); **C08L 61/10** (2006.01)

CPC (source: EP KR)
C08G 8/10 (2013.01 - EP); **C08L 61/06** (2013.01 - EP KR)

C-Set (source: EP)
1. **C08L 61/06** + **C08L 2666/14**
2. **C08L 61/06** + **C08L 2666/04**

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

DOCDB simple family (publication)
WO 02070599 A2 20020912; **WO 02070599 A3 20021107**; **WO 02070599 A8 20040603**; **WO 02070599 A9 20040722**;
CA 2438191 A1 20020912; CN 1461311 A 20031210; EA 005231 B1 20041230; EA 200300841 A1 20040429; EP 1358214 A2 20031105;
EP 1358214 A4 20040818; HU P0302209 A2 20031028; IT MI20010236 A1 20020807; KR 20030026238 A 20030331; LV 13149 B 20040720;
PL 368324 A1 20050321

DOCDB simple family (application)
US 0203295 W 20020207; CA 2438191 A 20020207; CN 02801144 A 20020207; EA 200300841 A 20020207; EP 02709345 A 20020207;
HU P0302209 A 20020207; IT MI20010236 A 20010207; KR 20027013416 A 20021007; LV 030095 A 20030829; PL 36832402 A 20020207