

Title (en)

THERMOSET/SUPRAMOLECULAR HYBRID COMPOSITES AND RESINS THAT CAN BE HOT-FORMED AND RECYCLED

Title (de)

WÄRMEHÄRTBARE/SUPRAMOLEKULARE HYBRIDVERBUNDSTOFFE UND WARMFORMBARE SOWIE RECYCLINGFÄHIGE HARZE

Title (fr)

RESINES ET COMPOSITES HYBRIDES THERMODURS/SUPRAMOLECULAIRES POUVANT ETRE FACONNES A CHAUD ET RECYCLES

Publication

EP 2707413 A1 20140319 (FR)

Application

EP 12720486 A 20120510

Priority

- FR 1154010 A 20110510
- EP 2012058616 W 20120510

Abstract (en)

[origin: WO2012152859A1] Thermoset/supramolecular hybrid composites and resins, resulting from bringing at least one thermosetting resin precursor, this thermosetting resin precursor comprising hydroxyl functions and/or epoxy groups, and optionally ester functions, into contact with at least one hardener chosen from carboxylic acids and acid anhydrides, and with at least one compound comprising, on the one hand, at least one associative group, and on the other hand at least one function enabling the grafting thereof to the thermosetting resin precursor, to the hardener or to the product resulting from the reaction of the thermosetting resin precursor and the hardener, in the presence of at least one transesterification catalyst. Process for manufacturing these materials, process for transforming and process for recycling these materials. Novel solid forms of hybrid composites and resins which can be used in the implementation of these processes.

IPC 8 full level

B29B 17/00 (2006.01); **B29C 35/00** (2006.01); **C08G 59/42** (2006.01); **C08G 63/685** (2006.01); **C08G 63/82** (2006.01); **C08L 63/00** (2006.01); **C08L 67/00** (2006.01)

CPC (source: EP US)

B29B 17/00 (2013.01 - EP US); **B29C 67/24** (2013.01 - US); **C08G 59/1477** (2013.01 - US); **C08G 59/42** (2013.01 - EP US); **C08G 83/008** (2013.01 - EP US); **C08L 63/00** (2013.01 - EP US); **C08L 67/08** (2013.01 - EP US); **B29K 2063/00** (2013.01 - EP US); **B29K 2105/24** (2013.01 - EP US); **Y02W 30/62** (2015.05 - EP US)

Citation (search report)

See references of WO 2012152859A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2012152859 A1 20121115; BR 112013029011 A2 20170117; CN 103687888 A 20140326; CN 103687888 B 20160817; EP 2707413 A1 20140319; FR 2975101 A1 20121116; FR 2975101 B1 20130426; JP 2014513192 A 20140529; JP 6099630 B2 20170322; US 2014088223 A1 20140327; US 9359467 B2 20160607

DOCDB simple family (application)

EP 2012058616 W 20120510; BR 112013029011 A 20120510; CN 201280034101 A 20120510; EP 12720486 A 20120510; FR 1154010 A 20110510; JP 2014509731 A 20120510; US 201214116541 A 20120510