

Title (en)

USE OF LOW-TEMPERATURE FOAMABLE EPOXIDE RESINS IN HOLLOW CHAMBER STRUCTURES

Title (de)

VERWENDUNG VON BEI NIEDRIGEN TEMPERATUREN SCHÄUMBAREN EPOXIDHARZEN IN HOHLRAUMSTRUKTUREN

Title (fr)

UTILISATION DE RÉSINES ÉPOXYDE MOUSSABLES À BASSES TEMPÉRATURES DANS DES STRUCTURES CREUSES

Publication

**EP 2473559 A1 20120711 (DE)**

Application

**EP 10740686 A 20100811**

Priority

- DE 102009029030 A 20090831
- EP 2010061688 W 20100811

Abstract (en)

[origin: WO2011023552A1] The invention relates to a method for reinforcing a substrate having a hollow chamber structure or for fastening an insertion in such a substrate, wherein a one or two component foamable and curable preparation based on epoxide resin is introduced into a selected part of the hollow chamber structure that is to be reinforced, and the preparation is cured by heating to a temperature in the range of 20°C to 100°C or greater while foaming, wherein the preparation comprises at least one of the following components: a) at least one epoxide resin prepolymer having reactive epoxide groups, b) at least one organic ammonium carbamate, preferably one that splits off at least 25% of the CO<sub>2</sub> bound as carbamate within an hour at a temperature in the range of 20 to 100°C or above; an insertion for mounting in a substrate, the part thereof to be attached within the substrate being at least partially enclosed by such a foamable and curable preparation; an object comprising a substrate having a hollow chamber structure or made thereof, wherein the substrate is reinforced or has an insertion added using said preparation.

IPC 8 full level

**C08J 9/00** (2006.01)

CPC (source: EP KR US)

**B29C 44/128** (2013.01 - EP US); **C08G 59/18** (2013.01 - KR); **C08J 9/00** (2013.01 - KR); **C08J 9/08** (2013.01 - EP US);  
**C08K 5/205** (2013.01 - KR); **C08L 63/00** (2013.01 - KR); **C08J 2201/024** (2013.01 - EP US); **C08J 2363/00** (2013.01 - EP US);  
**Y10T 428/1352** (2015.01 - EP US)

Citation (search report)

See references of WO 2011023552A1

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 SE SI SK SM TR

DOCDB simple family (publication)

**DE 102009029030 A1 20110303; DE 102009029030 A8 20110601;** EP 2473559 A1 20120711; JP 2013503215 A 20130131;  
KR 20120073212 A 20120704; US 2012156412 A1 20120621; WO 2011023552 A1 20110303

DOCDB simple family (application)

**DE 102009029030 A 20090831;** EP 10740686 A 20100811; EP 2010061688 W 20100811; JP 2012525984 A 20100811;  
KR 20127005169 A 20100811; US 201213407837 A 20120229