

Title (en)

THERMOSETTING MATERIALS HAVING IMPROVED FRACTURE TOUGHNESS

Title (de)

WÄRMEHÄRTBARE MATERIALIEN MIT VERBESSERTER BRUCHZÄHIGKEIT

Title (fr)

MATÉRIAUX THERMODURS À TENACITE À LA RUPTURE AMÉLIORÉE

Publication

**EP 2989165 A1 20160302 (FR)**

Application

**EP 14721467 A 20140410**

Priority

- FR 1353633 A 20130422
- FR 2014050864 W 20140410

Abstract (en)

[origin: WO2014174176A1] The present invention relates to a composition including, by weight, the total being 100 %: 50 to 99 % of a curable resin and of a curing agent in a molar ratio in the range of 1/5 to 5/1, and 1 to 50 % of a mixture: of a polyamide which includes at least one monomer resulting from the condensation of a diacid and of a diamine of formula (1) where: R1 is H or -Z1-NH2 and Z1 is an alkyl, a cycloalkyl or an aryl having up to 15 carbon atoms, and R2 is H or -Z2-NH2 and Z2 is an alkyl, a cycloalkyl or an aryl having up to 15 carbon atoms, R1 and R2 being either identical or different, and of an oligomer made from butadiene and acrylonitrile which are terminated by carboxyl functions or by amine functions, such as the reactive rubbers CTBN or ATBN; the polyamide and the oligomer being present in respective proportions of 1/10 to 10/1 by weight.

IPC 8 full level

**C08L 101/00** (2006.01); **C08G 59/46** (2006.01); **C08G 59/50** (2006.01); **C08L 13/00** (2006.01); **C08L 19/00** (2006.01); **C08L 63/00** (2006.01); **C08L 77/06** (2006.01)

CPC (source: EP US)

**C08G 59/245** (2013.01 - US); **C08G 59/504** (2013.01 - US); **C08G 69/265** (2013.01 - EP US); **C08G 69/36** (2013.01 - EP US); **C08L 13/00** (2013.01 - EP US); **C08L 19/006** (2013.01 - EP US); **C08L 63/00** (2013.01 - US); **C08L 77/06** (2013.01 - EP US); **C08L 2205/03** (2013.01 - US); **C08L 2205/05** (2013.01 - US); **C08L 2205/06** (2013.01 - US)

Citation (search report)

See references of WO 2014174176A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**FR 3004719 A1 20141024; FR 3004719 B1 20150410;** EP 2989165 A1 20160302; JP 2016520686 A 20160714; US 2016068675 A1 20160310; WO 2014174176 A1 20141030

DOCDB simple family (application)

**FR 1353633 A 20130422;** EP 14721467 A 20140410; FR 2014050864 W 20140410; JP 2016509516 A 20140410; US 201414786058 A 20140410