

Title (en)
REACTION RESIN COMPRISING CORE-SHELL PARTICLES AND METHOD FOR THE PRODUCTION THEREOF AND THE USE THEREOF

Title (de)
KERN-SCHALEPARTIKEL ENTHALTENDE REAKTIONSHARZE UND VERFAHREN ZU IHRER HERSTELLUNG UND DEREN VERWENDUNG

Title (fr)
RÉSINES DE RÉACTION CONTENANT DES PARTICULES DE TYPE C UR-ÉCORCE ET PROCÉDÉ POUR LEUR PRODUCTION ET LEUR UTILISATION

Publication
EP 2152804 A1 20100217 (DE)

Application
EP 08759723 A 20080519

Priority
• EP 2008056095 W 20080519
• DE 102007024967 A 20070530

Abstract (en)
[origin: WO2008145550A1] The invention relates to a composition comprising (A) 50 - 99.5 weight % of a reaction resin or a reaction resin mixture that can be processed into a thermosetting material and is liquid at temperatures in the range from 15 to 100 °C and has an average molecular weight of 200 to 500,000, and having a sufficient number of suitable reactive groups for the curing process, and (B) 0.5 to 50 weight % of one or more three-dimensionally cross-linked redispersed polyorganosiloxane rubbers, which are homogenously present in the reaction resin or reaction resin mixture in a finely distributed form as polyorganosiloxane rubber particles having a diameter of 0.001 to 0.4 µm, the polyorganosiloxane rubber particles being made of a core (a) made of a silicone-organic polymer and an organopolymer shell (d) and optionally two inner shells (b) and (c), the inner shell (c) being an organic polymer and the inner shell (b) being a silicone-organic polymer, comprising (a) 20 to 95 weight %, relative to the total weight of the polyorganosiloxane rubber particle, of a core polymer of the general formula $(R_3SiO_{1/2})_w(R_2SiO_{2/2})_x(RSiO_{3/2})_y(SiO_{4/2})_z$, wherein $w = 0$ to 20 Mol %, $x = 80$ to 99.5 Mol %, $y = 0.5$ to 10 Mol %, $z = 0$ to 10 Mol %, (b) 0 to 40 weight %, relative to the total weight of the polyorganosiloxane rubber particle, of a polydialkylsiloxane shell made of units of the formula $(R_3SiO_{1/2})_w(R_2SiO_{2/2})_x(RSiO_{3/2})_y(SiO_{4/2})_z$, wherein $w = 0$ to 20 Mol %, $x = 0$ to 99.5 Mol %, $y = 0.5$ to 100 Mol %, $z = 0$ to 50 Mol %, (c) 0 to 40 weight %, relative to the total weight of the polyorganosiloxane rubber particle, of a shell made of organopolymer monoolefinically or polyolefinically unsaturated monomers, and (d) 5 to 95 weight %, relative to the total weight of the polyorganosiloxane rubber particle, of a shell made of organopolymer monoolefinically unsaturated monomers, wherein R means identical or different monovalent alkyl or alkenyl radicals having 1 to 6 carbon atoms, aryl radicals, or substituted hydrocarbon radicals.

IPC 8 full level
C08L 51/08 (2006.01); **C08F 283/12** (2006.01)

CPC (source: EP US)
C08F 283/12 (2013.01 - EP US); **C08L 51/04** (2013.01 - EP US); **C08L 51/08** (2013.01 - EP US); **C08L 51/085** (2013.01 - EP US)

Citation (search report)
See references of WO 2008145550A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
DE 102007024967 A1 20081204; CN 101679718 A 20100324; CN 101679718 B 20120905; EP 2152804 A1 20100217; JP 2010528165 A 20100819; US 2010305273 A1 20101202; WO 2008145550 A1 20081204

DOCDB simple family (application)
DE 102007024967 A 20070530; CN 200880017998 A 20080519; EP 08759723 A 20080519; EP 2008056095 W 20080519; JP 2010509784 A 20080519; US 59919308 A 20080519