Title (en)

WATER-SOLUBLE, HYDROPHOBICALLY ASSOCIATING NANOCOMPOSITES (AS RHEOLOGY MODIFIERS FOR APPLICATIONS IN CONSTRUCTION CHEMISTRY)

Title (de)

WASSERLÖSLICHE HYDROPHOB ASSOZIIERENDE NANOKOMPOSITE (ALS RHEOLOGIEMODIFIZIERER FÜR BAUCHEMISCHE ANWENDUNGEN)

Title (fr)

NANOCOMPOSITES HYDROSOLUBLES À ASSOCIATION HYDROPHOBE (EN TANT QU'AGENTS DE MODIFICATION DE RHÉOLOGIE POUR APPLICATIONS AUX PRODUITS CHIMIQUES DE CONSTRUCTION)

Publication

EP 2496535 A2 20120912 (DE)

Application

EP 10778607 A 20101028

Priority

- EP 09174907 A 20091103
- EP 2010066370 W 20101028
- EP 10778607 A 20101028

Abstract (en)

[origin: WO2011054730A2] The invention relates to hydrophobically associating nanocomposites containing a silica, a hydrophobically modified monomer and a hydrophilic monomer. The silica constituent comprises an aqueous colloid-disperse solution of amorphous silicon dioxide (SiO2), hydrophobically modified monomer (0.1 to 10 % by weight) and hydrophilic monomer (10 to 99.9 % by weight). The production of nanocomposites is carried out by the radical polymerization as a gel polymerization in an aqueous phase. These nanocomposites have a substantially improved effect as water retention agents and rheology modifiers in aqueous building material systems and display improved properties compared to currently used products.

IPC 8 full level

C04B 24/16 (2006.01)

CPC (source: EP US)

C04B 20/12 (2013.01 - EP US); **C04B 28/02** (2013.01 - EP US); **C04B 28/14** (2013.01 - EP US); **C09C 1/3072** (2013.01 - EP US); C04B 2111/00517 (2013.01 - EP US); C04B 2111/00637 (2013.01 - EP US)

Citation (search report)

See references of WO 2011054730A2

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 2011054730 A2 20110512; **WO 2011054730 A3 20110714**; AU 2010314220 A1 20120531; CA 2779245 A1 20110512; CN 102596845 A 20120718; EP 2496535 A2 20120912; JP 2013510199 A 20130321; RU 2012122601 A 20131210; US 2012238670 A1 20120920

DOCDB simple family (application)

EP 2010066370 W 20101028; AU 2010314220 A 20101028; CA 2779245 A 20101028; CN 201080049887 A 20101028; EP 10778607 A 20101028; JP 2012537347 A 20101028; RU 2012122601 A 20101028; US 201013504150 A 20101028