

Title (en)

AQUEOUS PARTICLE DISPERSION AND PROCESS FOR FORMING AN AQUEOUS PARTICLE DISPERSION

Title (de)

WÄSSRIGE PARTIKELDISPERSION UND VERFAHREN ZUR HERSTELLUNG EINER WÄSSRIGEN PARTIKELDISPERSION

Title (fr)

DISPERSION AQUEUSE DE PARTICULES ET PROCÉDÉ DE FORMATION D'UNE DISPERSION AQUEUSE DE PARTICULES

Publication

EP 4196535 A1 20230621 (EN)

Application

EP 21762406 A 20210810

Priority

- EP 20191024 A 20200814
- EP 2021072304 W 20210810

Abstract (en)

[origin: EP3954744A1] The present invention relates to a process for producing an aqueous particle dispersion comprising the steps of: a) providing a dispersion consisting of water and solid core particles, b) providing an aqueous solution of a water-soluble, interfacially-active polymer having a molecular weight of more than 10 kDa, c) mixing said aqueous dispersion of solid core particles with said aqueous polymer solution, d) removing free polymer from the obtained mixture; wherein, in step c), the amount of the water-soluble, interfacially-active polymer mixed with said aqueous dispersion of solid core particles exceeds the amount of polymer required to coat the surface of each of the solid core particles with a monolayer of the polymer, and wherein step d) is repeated until the surface tension of the resulting modified particle dispersion is in a range of from 60 to 72 mN/m, preferably from 65 to 72 mN/m and more preferably from 67 to 72 mN/m. The present invention also relates to an aqueous particle dispersion exhibiting a homogenous drying pattern as well as a film made thereof and the use of the aqueous particle dispersion.

IPC 8 full level

C09D 5/00 (2006.01); **C09D 11/00** (2014.01); **C09D 17/00** (2006.01)

CPC (source: EP)

C09D 5/00 (2013.01); **C09D 11/106** (2013.01); **C09D 11/322** (2013.01); **C09D 17/001** (2013.01)

Citation (search report)

See references of WO 2022034102A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 3954744 A1 20220216; **EP 3954744 B1 20240306**; EP 4196535 A1 20230621; WO 2022034102 A1 20220217

DOCDB simple family (application)

EP 20191024 A 20200814; EP 2021072304 W 20210810; EP 21762406 A 20210810