

Title (en)
PICKERING EMULSION FOR PRODUCING ELECTRICALLY CONDUCTIVE COATINGS AND PROCESS FOR PRODUCING A PICKERING EMULSION

Title (de)
PICKERING-EMULSION ZUR HERSTELLUNG ELEKTRISCH LEITFÄHIGER BESCHICHTUNGEN UND VERFAHREN ZUR HERSTELLUNG EINER PICKERING-EMULSION

Title (fr)
ÉMULSION DE PICKERING POUR LA FABRICATION DE REVÊTEMENTS ÉLECTROCONDUCTEURS ET PROCÉDÉ DE PRÉPARATION D'UNE ÉMULSION DE PICKERING

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Application
EP 11797328 A 20111219

Priority
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Abstract (en)
[origin: EP2468826A1] Producing a pickering emulsion for producing conductive coatings, comprises: (a) mixing an aqueous dispersion containing sterically stabilized silver nanoparticles and water with at least one water-immiscible solvent and dispersing into an emulsion, where the content of stabilized silver nanoparticles is 0.5-7 wt.%; (b) separating the emulsion obtained during a residence time in the step (a) into an upper concentrated emulsion phase and a lower aqueous phase by creaming; and (c) isolating the resulting upper concentrated emulsion phase. Producing a pickering emulsion for producing conductive coatings, comprises: (a) mixing an aqueous dispersion containing sterically stabilized silver nanoparticles and water with at least one water-immiscible solvent and dispersing into an emulsion, where the content of stabilized silver nanoparticles is 0.5-7 wt.%; (b) separating the emulsion obtained during a residence time in the step (a) into an upper concentrated emulsion phase and a lower aqueous phase by creaming; and (c) isolating the resulting upper concentrated emulsion phase, where the emulsion phase has a content of silver nanoparticles up to 7 wt.%, preferably up to 4.5 wt.%, based on their total weight. Independent claims are also included for: (1) a pickering emulsion for producing conductive coatings, comprising emulsion stabilized silver nanoparticles, water and at least one organic water-immiscible solvent, where the stabilized silver nanoparticles are present in an amount of 0.5-7 wt.%, based on the total weight of the emulsion; (2) complete- or partial surface coating of surfaces, comprising applying the pickering emulsion completely or partially on the surface, covering the coated surface with a cover such the of water and solvent can escape, drying the covered, coated surface at least at a temperature of less than 40[deg] C, sintering the dried coating in the presence or absence of the cover; and (3) a conductive coating, which is transparent.

IPC 8 full level
C09D 5/24 (2006.01); **B22F 1/0545** (2022.01); **B22F 9/24** (2006.01); **C09D 7/61** (2018.01); **H01B 1/22** (2006.01); **H05K 1/09** (2006.01)

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