

Title (en)

METHOD FOR TREATING SURFACES OF TEXTILES AND NON-TEXTILES, IN SUCH A WAY AS TO STIMULATE THE DETACHMENT OF DIRT

Title (de)

VERFAHREN ZUR SCHMUTZABLÖSUNGSFÖRDERNDEN BEHANDLUNG VON OBERFLÄCHEN TEXTILER UND NICHT-TEXTILER MATERIALIEN

Title (fr)

PROCEDE DE TRAITEMENT FAVORISANT LE DECOLLEMENT DE SALETE DE SURFACES DE MATERIAUX TEXTILES ET NON TEXTILES

Publication

EP 1402104 A1 20040331 (DE)

Application

EP 02780767 A 20020613

Priority

- DE 10128900 A 20010615
- EP 0206511 W 20020613

Abstract (en)

[origin: DE10128900A1] The invention relates to a method for treating surfaces of textiles and non-textiles, in such a way as to stimulate the detachment of dirt. Cationically modified hydrophilic nanoparticles based on non-crosslinked polymers consisting of (a) between 60 and 100 wt. % of at least one ethylenically unsaturated monomer containing carboxyl groups, or the salts thereof, (b) between 0 and 40 wt. % of at least one water-insoluble monoethylenically unsaturated monomer, (c) between 0 and 25 wt. % of at least one monomer containing sulfonic acid and/or phosphonic acid groups, or the salts thereof, and (d) between 0 and 30 wt. % of at least one water-insoluble non-ionic monomer from an aqueous dispersion, are applied to the surface of said textiles or non-textiles. The dispersion of the hydrophilic nanoparticles can be stabilised with anionic, non-ionic and/or betainic emulsifiers and/or protective colloids. Said hydrophilic nanoparticles have a particulate size of between 10 nm and 2 μm and can be cationically modified by coating their surface with at least one cationic polymer, at least one polyvalent metal ion and/or at least one cationic surfactant.

[origin: DE10128900A1] Cationically surface-modified hydrophilic non-crosslinked homo or co-polymer nanoparticles are claimed, as is also stain-release treatment of textile or non-textile surfaces using aqueous dispersions of the particles. INDEPENDENT CLAIMS are included for: (1) cationically-modified hydrophilic non-crosslinked polymer nanoparticles of size 10 nm to 2 microns which are surface-coated with cationic polymers, polyvalent metal ions or cationic surfactants, the crosslinked polymer comprising (by wt.) (a) carboxyl group-containing ethylenically-unsaturated monomers or salts (60-100%); (b) water-insoluble mono- ethylenically-unsaturated monomers (0-40%); (c) sulfonic- and/or phosphonic-acid-containing monomers (0-25%); and (d) water-soluble nonionic monomers (0-30%); (2) aqueous dispersions of such particles, the dispersions being stabilized with anionic, nonionic and/or betaine-type surfactants and/or protective colloids; and (3) stain-releasing treatment of textile or non-textile surfaces using the dispersions.

IPC 1-7

D06M 15/263; D06M 15/356; D06M 15/21; C11D 17/00; C11D 3/37

IPC 8 full level

C11D 1/02 (2006.01); C11D 1/66 (2006.01); C11D 1/90 (2006.01); C11D 1/94 (2006.01); C11D 3/00 (2006.01); C11D 3/37 (2006.01); C11D 17/00 (2006.01); D06M 15/263 (2006.01); D06M 23/08 (2006.01)

CPC (source: EP US)

C11D 1/02 (2013.01 - EP US); C11D 1/66 (2013.01 - EP US); C11D 1/90 (2013.01 - EP US); C11D 1/94 (2013.01 - EP US); C11D 3/0036 (2013.01 - EP US); C11D 3/37 (2013.01 - EP US); C11D 3/3719 (2013.01 - EP US); C11D 3/3723 (2013.01 - EP US); C11D 3/3757 (2013.01 - EP US); C11D 3/3769 (2013.01 - EP US); C11D 3/3776 (2013.01 - EP US); C11D 17/0013 (2013.01 - EP US); D06M 15/263 (2013.01 - EP US); D06M 23/08 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

DE 10128900 A1 20021219; EP 1402104 A1 20040331; US 2004250354 A1 20041216; WO 02103106 A1 20021227

DOCDB simple family (application)

DE 10128900 A 20010615; EP 0206511 W 20020613; EP 02780767 A 20020613; US 48082303 A 20031215