

Title (en)
EMULGATING POLYMERS AND THEIR USE

Title (de)
EMULGIERENDE POLYMERE UND DEREN VERWENDUNG

Title (fr)
POLYMÈRES ÉMULSIFIANTS ET LEUR UTILISATION

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Application
EP 08775379 A 20080731

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Abstract (en)
[origin: EP2020422A1] Polymer (I) obtained by the copolymerization of at least an ethylenically unsaturated monomer compound (Ia) exhibiting unsaturated mono- or dicarboxylic acid, unsaturated sulfonic acid and unsaturated phosphonic acid with an ethylenically unsaturated monomer compound (Ib); an ethylenically unsaturated vinyl-benzene monomer compound (IV); an ethylenically unsaturated alkene monomer compound (V); optionally a basic ethylenically unsaturated alkene monomer compound (VI); and optionally a further ethylenically unsaturated monomer compound (VII), is new. Polymer (I) obtained by the copolymerization of at least an ethylenically unsaturated monomer compound (Ia) exhibiting unsaturated mono- or dicarboxylic acid or its analogous, unsaturated sulfonic acid or its analogous and unsaturated phosphonic acid or its analogous with at least an ethylenically unsaturated monomer compound (Ib) ((B1), (B2) or (B3)); at least an ethylenically unsaturated vinyl-benzene monomer compound of formula (IV); at least an ethylenically unsaturated alkene monomer compound of formula (V); optionally at least a basic ethylenically unsaturated alkene monomer compound of formula (VI); and optionally at least a further ethylenically unsaturated monomer compound (VII), is new. R 1>-(Y 1>-[(C 2H 4O) x-(C 3H 6O) y-(C 4H 8O) z]-R 2>) n(B1), R 1>-[(CH 2) r-O-Q-(O-[(C 2H 4O) x-(C 3H 8O) y-(C 4H 8O) z]-R 2>) q] n(B2) CH 2=C(R 7>)-X-R 8>(V) CH 2=C(R 11>)-Y 2>-R 12>(VI) R 1>mono- or dicarboxylic acid after removing n carboxylic acid group; R 2>H, 1-20C-alkyl or 7-20C-alkylaryl; R 3>dicarboxylic acid after removing two carboxylic acid group; Y 1>-O-, -CH 2-O-, -CH 2-C(=O)-O-, -C(=O)-O-, -CH 2-N(R 4>)- or -C(=O)-N(R 4>-); R 4>1-20C-alkyl, 7-20C-alkylaryl or H, preferably R 4>=H; n : 1 or 2; r : 0 or 1; either x, y, z : 0-250; or x+y+z : >= 3; Q : polyalcohol of formula (Q(OH) q+1) after removing all OH groups; q : 2-5, preferably 2 or 3; R 5>1-30C-alkyl, alkoxy group of formula (-OR 6>), polyoxyalkoxy group of formula (-O-[(C 2H 4O) x-(C 3H 6O) y-(C 4H 8O) z]-R 2>), Cl, F, Br or NO 2; m : 0-5, preferably 0; R 6>1-30C-alkyl; R 7>H or CH 3; X : -CH 2-N(R 9>-), -C(=O)-N(R 9>-), -N(R 10>-), -O-, -CH 2-O-, -C(=O)-, -O-C(=O)-, -CH 2-O-C(=O)-, -C(=O)-O-, -CH 2-C(=O)-O-, -C(=O)-O-, -CH 2-C(=O)-O- or -CH 2-C(=O)-; either R 8>2-30C-alkyl, 2-30C-cycloalkyl or 2-30C-alkenyl, 7-20C-alkylaryl or 7-20C-aralkyl, optionally substituted aryl or a bivalent residue 2-30C; and R 9>1-20C-alkyl, 7-20C-alkylaryl or H, preferably R 9>=H; and R 10>1-20C-alkyl, 7-20C-alkylaryl or 1-20C-alkenyl; or R 8>R 9>N, R 8>R 10>N : a ring, preferably 5-8 membered ring, which optionally exhibits aromatic structure and heteroatoms, when X is -CH 2-N(R 9>-), -C(=O)-N(R 9>-) or -N(R 10>-); or R 9>N : optionally a ring, preferably 5-8 membered ring; or R 8>R 9>a ring, preferably 5-8 membered ring containing heteroatoms; or R 10>N, R 10>R 8>a ring, preferably 5-8 membered ring, optionally containing heteroatoms; R 11>H or CH 3; Y 2>-CH 2- or -C(=O)-; and R 12>at least a primary, secondary or tertiary amino group (when Y 1>is -CH 2-) or at least a secondary or tertiary amino group (when Y 1>is -C(=O)-). An independent claim is included for a composition comprising (I) and at least a foaming agent. [Image].

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