

Title (en)

COMB POLYMERS AND THEIR USE AS ADDITIVES FOR PREPARATIONS OF MINERAL BINDERS

Title (de)

KAMMPOLYMERE UND DEREN VERWENDUNG ALS ADDITIVE FÜR ZUBEREITUNGEN MINERALISCHER BINDEMittel

Title (fr)

POLYMERES EN PEIGNE ET UTILISATION EN TANT QU'ADDITIFS POUR LA PREPARATION DE LIANTS MINERAUX

Publication

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Application

**EP 06819275 A 20061106**

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Abstract (en)

[origin: WO2007051858A2] The invention relates to novel comb polymers supporting, on a carbon backbone, poly-C<SUB>2</SUB>-C<SUB>4</SUB>-alkylene ether side chains A and functional groups B, which exist in the form of anionic groups at a pH > 12, and to the salts of comb polymers of this type. The invention also relates to the use of these comb polymers as additives in preparations containing a mineral binder. The polyalkylene ether side chains A have the following formula \*-U-(C(O))<SUB>k</SUB>-X-(Alk-O)<SUB>n</SUB>-Y-Z A, wherein: \* represents the binding site to the carbon backbone of the comb polymer; U represents a chemical bond or an alkylene group with 1 to 8 C atoms; X represents oxygen or a group NR; k represents 0 or 1; n represents an integer whose mean value, with regard to the comb polymer, ranges from 5 to 300; Alk represents C<SUB>2</SUB>-C<SUB>4</SUB>-alkylene, Alk being able to be the same or different within the group (Alk-O)<SUB>n</SUB>-Y-Z; Y represents a linear or branched alkylene group with 2 to 8 C atoms, which can support a phenyl ring; Z represents a 5- to 10-membered nitrogen heterocyclic compound that, as ring members, can comprises, in addition to the nitrogen atom and the carbon atoms, 1, 2 or 3 additional heteroatoms selected among oxygen, nitrogen and sulfur, the nitrogen ring members being able to contain a group R', and 1 or 2 carbon ring members can exist in the form of a carbonyl group; R represents hydrogen, C<SUB>1</SUB>-C<SUB>4</SUB>-alkyl or Benzyl, and; R' represents hydrogen, C<SUB>1</SUB>-C<SUB>4</SUB>-alkyl or Benzyl.

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