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ADMIXTURE FOR CONCRETE

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PCT No. PCT/JP94/02097 Sec. 371 Date Jun. 13, 1996 Sec. 102(e) Date Jun. 13, 1996 PCT Filed Dec. 14, 1994 PCT Pub. No. WO95/16643 PCT Pub. Date Jun. 22, 1995. An admixture for concrete comprising, as an essential component, a copolymer prepared by copolymerizing (a) a polyalkylene glycol monoester monomer having 110–300 mol of an oxyalkylene group(s) each having 2–3 carbon atoms, with (b) at least one monomer selected from among acrylic monomers, unsaturated dicarboxylic monomers and allylsulfonic monomers. When this admixture is used in preparing concrete, the resulting concrete composition undergoes little change in the slump for a lengthened time, so that the quality of the concrete composition can be easily controlled.

5714002

PROCESS FOR MAKING A BLENDED HYDRAULIC CEMENT

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The present invention is directed to processes for making blended hydraulic cement compositions. In one embodiment, the process includes the steps of: providing from about 85 to 99.7 wt% of the total composition of a subbituminous fly ash; separating out about a 10% portion of the fly ash; adding from about 0.1 to 7 wt% of the total composition of a retarding agent, from about 0.1 to 4 wt% of the total composition of citric acid, and from about 0.1 to 4 wt% of the total composition of potassium carbonate to the 10% portion; and blending the remainder of the ash with the 10% portion to create a blended hydraulic cement composition.

5714003

BLENDED HYDRAULIC CEMENT

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The present invention is directed to blended hydraulic cement compositions which are formed with subbituminous fly ash. In a first embodiment, the cement composition comprises from about 0.1 to 7 wt% of a retarding agent; from about 0.1 to 4 wt% of the total composition of potassium carbonate; from about 0.1 to 4 wt% of the total composition of citric acid; and from about 85 to 99.7 wt% of the total composition of a subbituminous fly ash. In a second embodiment, the cement composition comprises from about 0.1 to 7 wt% of the total composition of a retarding agent; from about 0.1 to 6 wt% of the total composition of an alkali source selected from the group consisting of potassium carbonate, potassium hydroxide and blends thereof; from about 0.1 to 4 wt% of the total composition of citric acid; from about 25 to 91.7 wt% of the total composition of a first subbituminous fly ash having a lime content; and from about 8 to 60 wt% of the total composition of a second fly ash selected from the group consisting of lignite fly ash, bituminous fly ash and scrubber material.

5718759

CEMENTITIOUS GYPSUM-CONTAINING COMPOSITIONS AND MATERIALS MADE THEREFROM

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A cementitious composition useful for water-resistant construction materials, including floor underlayments, backing boards, self-leveling floor materials, road patching materials, fiberboard, fire-proofing sprays, and fire-stopping materials includes about 20–75 wt% calcium sulfate beta-hemihydrate, about 10–50 wt% Portland cement, about 4–20 wt% silica fume and about 1–50 wt% pozzolanic aggregate. The Portland cement component may also be a blend of Portland cement with fly ash and/or ground blast slag.