

***Patents* ALERT**

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Cement & Concrete Composites

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6612085**REINFORCING BARS FOR CONCRETE STRUCTURES**

Christopher M. Edwards, Edward L. D'Hooghe
The Netherlands

Assigned to Dow Global Technologies Inc.

Reinforcing bars for concrete structures, are made from a composite of a depolymerizable and repolymerizable thermoplastic resin and longitudinally oriented reinforcing fibers. These reinforcing bars provide excellent tensile reinforcement, and do not exhibit the corrosion problems of conventional steel reinforcing bars. The rebars are readily formed into a great many shapes that are adapted to many specialized reinforcement requirements.

6613141**RECOVERY OF CEMENT KILN DUST THROUGH PRECIPITATION OF CALCIUM SULFATE USING SULFURIC ACID SOLUTION**

Jerry F. Key Jr.
USA

A method and apparatus for recovering calcium sulfate di-hydrate (gypsum) from a precipitation reaction between cement kiln dust and commercial, spent or waste grade sulfuric acid solution. The gypsum recovered from this process acts as a necessary functional additive for use in the production of hydraulic Portland cement. The invention advantageously provides for a method of producing a fertilizer as a byproduct of the gypsum production process. The invention also provides a method of producing Portland cement using the gypsum derived from the cement kiln dust.

6616751**WATER-SELECTIVE CEMENTING COMPOSITION**

Pierre Maroy, Jack Maberry
France

Assigned to Schlumberger Technology Corporation

A cementing composition comprising a hydraulic cement powder dispersed in a solvent that is miscible both with water and hydrocarbons to make a slurry. The

cement powder can be made up simply of hydraulic cement materials or can be a mixture of such materials with particles that are inert or reactive with cement. The composition can also include surfactants or retarders. The composition is used to plug water production in a well while leaving hydrocarbon production unaffected.

6626243**METHODS AND COMPOSITIONS FOR USE IN CEMENTING IN COLD ENVIRONMENTS**

Virgilio C. Spring Go Boncan
USA

Assigned to BJ Services Company

Cement compositions for cementing wellbores in cold environments. The cement compositions may include a mixture of a reactive aluminum silicate, aluminum sulfate and hydraulic cement, and may include one or more other additives. The cement compositions may be formulated to have reduced heat of hydration as compared to conventional cements, making them suited for cementing in permafrost environments. The cement slurries may optionally be foamed using a foaming agent and energizing phase.

6627138**CUPOLA SLAG CEMENT MIXTURE AND METHODS OF MAKING AND USING THE SAME**

Willie W. Stroup, Randy D. Stroup, James H. Fallin
USA

A slag cement mixture and process of making the same is disclosed. The slag cement mixture is composed of cupola slag and Portland cement. The cupola slag is optionally ground granulated. One embodiment of the process includes rapidly quenching the slag by submersion into water or by spraying water onto it, and grinding the resulting product to achieve a fineness of at least 6,000 cm²/g. The process also includes the addition of 35% ground granulated cupola slag to portland cement to achieve a stronger and harder cement than Portland cement alone.

6627703**AIR CONTENT STABILIZING AGENTS FOR HYDRAULIC CEMENT COMPOSITIONS AND HYDRAULIC CEMENT COMPOSITIONS CONTAINING SAME**

Mitsuo Kinoshita, Shinji Tamaki

Japan

Assigned to Takemoto Yushi Kabushiki Kaisha

An agent for stabilizing air content of hydraulic cement compositions includes graft copolymers obtained by a first step in which copolymers with average numerical molecular weight 5000–50000 are obtained by radical polymerization of a mixture of radical polymerizable monomers containing anhydrous maleic acid and monomers of a specified form, together in an amount of 80 molar% or more and at molar ratio of 40/60–60/40 and a

second step in which graft copolymers are obtained by a graft reaction of 100 weight parts of the copolymers obtained in the first step and 7–60 weight parts of polyoxyalkylene monoalkylether and/or polyoxyalkylene monoalkenylether with a block addition of a total of 23–70 moles of ethylene oxide and propylene oxide per 1 mole of aliphatic alcohol with 8–20 carbon atoms. A hydraulic cement composition is produced with cement, aggregates, water, a cement dispersant, an agent for controlling air content and contains an agent for stabilizing air content as described above in the amount of 0.001–0.5 weight parts per 100 weight parts of the cement.