

CARBONATION OF REACTIVE MAGNESIA CEMENT (RMC)-BASED SYSTEMS

ABSTRACT

5

Herein discloses a method of carbonating reactive magnesia cement, which includes: (i) providing an aqueous suspension including a carbon dioxide-producing bacteria; (ii) mixing the aqueous suspension with a precursor which the carbon dioxide-producing bacteria generates carbon dioxide from for a duration to form an aqueous mixture
10 sufficient for substantially carbonating the reactive magnesia cement; (iii) mixing the aqueous mixture with the reactive magnesia cement to form a blend; wherein a nutrient is provided in the aqueous suspension of step (i) or in the reactive magnesia cement of step (iii) to sustain the carbon dioxide-producing bacteria in the reactive magnesia cement; and (iv) curing the blend to carbonate the reactive magnesia cement. A reactive
15 magnesia cement composite formed by the method is also disclosed.

No suitable figure to be published with abstract