

ABSTRACT

ECO-CEMENT, COMPOSITIONS THEREOF, AND METHODS OF PRODUCTION THEREOF

- 5 A sodium carbonate-activated cement composition is provided that is settable by hydration to produce CaCO_3 . The composition comprises 85% to 88% by weight of a cement precursor activated by an alkali reagent, and 11% to 15% by weight of a reagent comprising Na_2CO_3 . The cement composition may further comprise anhydrous sodium metasilicate at 2% to 5%, reactive magnesium oxide at 3% to 6%,
10 and synthetic hydrotalcite at 1% to 2% by weight of the composition. The precursor can be dry ferrous calcium-rich slag, dry non-ferrous calcium-rich slag, or a combination thereof.

No suitable figure