

Title (en)
SLAG-BASED HYDRAULIC BINDER, DRY MORTAR COMPOSITION COMPRISING SAME AND SYSTEM FOR ACTIVATING A SLAG-BASED BINDER

Title (de)
SCHLACKENBASIERTES HYDRAULISCHES BINDEMittel, TROCKENMÖRTELZUSAMMENSETZUNG DAMIT UND SYSTEM ZUR AKTIVIERUNG EINES SCHLACKENBASIERTEN BINDEMittELS

Title (fr)
LIANT HYDRAULIQUE À BASE DE LAITIER, COMPOSITION SÈCHE DE MORTIER COMPRENANT CE LIANT ET SYSTÈME D'ACTIVATION D'UN LIANT À BASE DE LAITIER

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Application
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Abstract (en)
[origin: WO2021180594A1] The aim of the invention is to provide a hydraulic binder based on ground granulated blast-furnace slag, devoid of Portland cement, which enables improved setting and hardening. For this purpose, the invention concerns a hydraulic binder comprising (in % by weight on a dry basis): A. at least 50 of at least one ground granulated blast-furnace slag; B. more than 5 of at least one calcium aluminate cement and/or of at least one calcium sulfoaluminate cement; C. more than 5 of at least one source of sulfate ions; D. between 1 and 5 of Ca(OH)₂ and/or of Portland cement; E. between 0.01 and 1 of at least one alkali metal carbonate, preferably Li₂CO₃; F. and at least one alkalifying reagent consisting of at least one alkali metal carbonate and/or bicarbonate, different from E, (NaHCO₃; Na₂CO₃; K₂CO₃ and mixtures thereof); with the conditions whereby: (i) the amount of C is sufficient that the sulfate ions of C can react with B and with A; (ii) the amount of F is sufficient that reaction thereof with component D in the presence of water brings the pH of the wet formulation obtained to a value of not less than 12, for a water-to-mortar mixing rate of between 10 and 35 % by weight.

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