

Title (en)

METHOD FOR THE PREPARATION OF FRESH CONCRETE AND FRESH CONCRETE OBTAINED BY THIS METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG VON FRISCHBETON UND NACH DIESEM VERFAHREN HERGESTELLTER FRISCHBETON

Title (fr)

PROCÉDÉ DE PRÉPARATION DE BÉTON FRAIS ET BÉTON FRAIS OBTENU PAR CE PROCÉDÉ

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Application

EP 20713822 A 20200220

Priority

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Abstract (en)

[origin: WO2020249141A1] The invention relates to a method for the preparation of 1 m³ of fresh concrete using recyclate made from inert construction and demolition waste, by which 1000 to 2300 kg of aggregate, 30 % by weight to 100 % by weight of which consists of recyclate from inert construction and demolition waste is mixed with 10 to 27.9 kg of microsilica or its substituent(s) or a mixture of microsilica and at least one substituent thereof, in an industrial mixer for 5 to 39.9 seconds, whereby due to the friction of the aggregate grains the grains of the recyclate from the inert construction and demolition waste are rubbed intensively, which consequently results in an increase in the specific surface area of the recyclate and production of fine pozzolanic powder, whereby the microsilica and/or substituent(s) thereof, together with the pozzolanic powder, coat the aggregate particles and fill the pores in them. After thorough mixing, 135 to 400 kg of cement is added to the mixture thus prepared under constant mixing within 1 to 20 seconds, with advantage within 1 to 9.9 seconds, or cement, and at least one substituent thereof in a total amount of 135 to 600 kg is added to it one by one in any order or simultaneously under constant mixing within 1 to 20 seconds, and the mixture thus prepared is mixed for a further 5 to 39.9 seconds, whereupon it is sprinkled with 50 to 300 kg of mixing water under constant mixing within 5 to 39.9 seconds, or it is sprayed with this amount of the mixing water within 5 to 39.9 seconds, whereby the surface of the cement and optionally of its substituent(s) is gradually moistened and the resulting cement paste is gradually adhered to the aggregate particles already coated with the mixture of microsilica and/or of its substituent(s) and pozzolanic powder, and after an additional 5 to 160 seconds of mixing, fresh concrete is prepared. The invention also relates to fresh concrete prepared by this method.

IPC 8 full level

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