

Title (en)
HIGH-PERFORMANCE CONCRETE COMPRISING AEROGEL PELLETS

Title (de)
HOCHLEISTUNGSBETON ENTHALTEND AEROGELGRANULAT

Title (fr)
BÉTON À HAUTE PERFORMANCE CONTENANT UN GRANULAT D'AÉROGEL

Publication
EP 3307694 A1 20180418 (DE)

Application
EP 16732969 A 20160613

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Abstract (en)
[origin: WO2016202718A1] The invention provides an aerogel-concrete mixture, a high-performance aerogel concrete obtained therefrom, and a method for production thereof. The problem addressed by the present application is that of providing pressure-resistant but not very thermally conductive concretes, precast concrete components, screeds, screeds for precast components, (glassfibre-)reinforced concrete, fire protection panels, construction elements for thermal partition and blocks. The aerogel-concrete mixture contains: 10% to 85% by volume/m³ of aerogel pellets having a grain size in the range from 0.01 to 4 mm, 100 to 900 kg/m³ of inorganic hydraulic binder, 10% to 40% by weight based on the binder content of at least one silica gel suspension, 1% to 5% by weight based on the binder content of at least one plasticizer, 0.2% to 1% by weight based on the binder content of at least one stabilizer and 0% to 60% by volume/m³ of at least one lightweight aggregate. The method for producing an aerogel concrete with an aerogel-concrete mixture involves first mixing aerogel and any lightweight aggregates, then adding a water-silica mixture, a water-plasticizer mixture and the stabilizer, adding the inorganic binder during a suspension of mixing, and, after restarting the mixing, adding the remaining water and continuing to mix.

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Citation (search report)
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Cited by
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