

عنوان مقاله:

CHARACTERIZATION OF THE CONCRETES REINFORCES METALLIC FIBERS Influence of the type and twinge of the fibres

محل انتشار:

نخستین کنفرانس بین المللی بتن (سال: 1388)

تعداد صفحات اصل مقاله: 15

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خلاصه مقاله:

In this work, we present an experimental survey to quantify the contribution of the metallic fibres on the main mechanical features of the composite, in order to specify its specific domains of use and to define the data necessary to the criteria's of dimensionality. So are examined the laws of behaviour (curve effort - distortion) in compression, direct traction and in bending one function of various compositions of mortars. Tow marks fibre metallic is three lengths for each are compared systematically (five compositions of mortar): of the fibres of steel provided with hooks to the extremities and the ribbons of amorphous melting, with lengths of 15,30 and 60 mm. dosage in volume of used fibres remained stationary and equal to 1%. The fact that these two mark fibres corresponds to two fashions different from backing of the matrix is underlined. The formulations of the mortars are justified. They have all in common to use the same materials, to have a report identical $E/C = 0.42$ and of an equivalent ouvrability. A fluidify is associated to the mortars with fibres. The fibres modify the mechanism of damage under static sollicitation, the first cracking is delayed, besides the fibres play a role of sewing on the cracks what increases the maximal load of ruin gotten in static's. The presence of the metallic fibres increases the resistance strongly to bending but slightly for traction, if the addition of the fibres doesn't increase the resistance in compression, it improves the energy of rupture that one can estimate by the calculation of the area under the curve effort distinctly - distortion. The direct exam of our curves effort distortion allows us to say that the presence of the fibres in the matrix improves the ductility of the test-tubes. This effect is due .to the fibres that continue to "to sew" the cracks that occur

کلمات کلیدی:

Concrete reinforced of the metallic fibres - Characterization - Sollicitation - Ductility

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<https://civilica.com/doc/76531>

