

DATASHEET

Fibrofor[®] DIAMOND



Product description

Diamond is a high performance synthetic monofiber serving as a structural concrete reinforcement. The unique high number of fibers guarantees an optimized three-dimensional reinforcement. The enhanced technical parameters of the concrete can be used for structural design purposes.

Diamond serves as a structural reinforcement, increases the impact resistance of the concrete and can also be used in structural applications.

Diamond prevents sedimentation - the subsequent settlement of the matrix.

Diamond creates a high level of resistance of concrete structures exposed to aggressive waters.

Application

Diamond is used for floor slabs and concrete walls, industrial floors, outdoor standings, etc. On the basis of Eurocode 2 and the Fibre Concrete Guidelines, it is possible to prove the adequate structural strength of slabs, concrete fields, foundations, walls and other structures, and therefore the need for steel reinforcement can be reduced or sometimes completely eliminated.

Dosage

The recommended approximate addition rate for Diamond is 2 - 3 kg/m³ of concrete as a structural reinforcement. The dosage depends on the kind of application and the requirements and is specified individually.

Physical properties

Specification	Monofiber
Material	pure Polyolefins
Form	Foifiber
Bulk density	0,91
Length	38 mm, tolerance +/- 5%
Width	0.9 mm
Colour	white
Resistance to acids/alkalis	inert
Tensile strength	≈ 400 N/mm ²
Modulus of elasticity	≈ 9'500 N/mm ²
Softening point	≈ 150° C
Foil thickness	42 μm

Processing

The addition of Diamond for mixing in concrete production facilities requires a slight increase in the mixing time, depending on the mixing device. Special mixtures for special products may require an additional extension of the mixing time.

Diamond can be processed with any additives known to us without any problems.

Caution: The addition of Diamond will increase the rigidity of the concrete!

Optimize the desired placement consistency by using concrete plasticiser!

Do not add any additional water!

Packaging

Bags	1 kg
Boxes	10 bags of 1 kg = 10 kg
Pallet	25 boxes = 250 kg

Warranty

Diamond fulfills the standard EN 14889-2 according to system 1 and therefore guarantees a consistently high quality.

Brugg Contec AG is not in control of any production processes using Diamond. Therefore Brugg Contec declines any liability for the end product.

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