

PRODUCT DATA SHEET

SikaFiber®-012

(formerly MasterFiber® 012)

Monofilament polypropylene fibers for cementitious systems

DESCRIPTION

SikaFiber®-012 is a high-performance monofilament polypropylene fibre developed as a crack controlling additive for concrete and mortar. **SikaFiber®-012** is supplied agglomerated in flakes bound by a water-soluble adhesive.

USES

SikaFiber®-012 is used to inhibit the formation of small cracks which can occur through plastic shrinkage and settlement, premature drying and early thermal changes, in order to provide utilisation of the intrinsic properties of the hardened cementitious material.

Specifically designed for crack control in cementitious materials covering areas such as ready-mix concrete, precast concrete, conventional shotcrete, screeds rendering mortars, etc.

Principle uses of fibre concrete include concrete slabs, pavements, driveways, imprinted concrete, curbs, pipes, overlays patch repair, microsilica concrete, thin section walling, water retaining structures, marine concrete, heavy industrial floors etc.

CHARACTERISTICS / ADVANTAGES

- Can replace anti-crack wire mesh in factory and warehouse floors.
- Inhibits intrinsic cracking in concrete.
- Disperse uniformly throughout the mix.
- Improves finishing characteristics.
- Improves concrete durability.
- Increases impact and abrasion resistance.
- Rustproof.
- Impervious to alkali attack.
- Decreases construction time and labour.
- Reduced risk of subsequent damage.
- Improves fire resistance – reduces the incidence of explosive spalling during heating.

PRODUCT INFORMATION

Packaging	SikaFiber®-012 is available in bags of 0.6kg packs.
Fibre Type	Polymerised polypropylene
Shelf Life	24 months from date of production
Storage Conditions	Should be stored in dry conditions.
Length	12mm (Surface area - 230m ² /kg min)
Diameter	18 micron

Density	0.91 g/cm ³
Melting Point	160°C
Dry Fibre Modulus of Elasticity in Tension	3500-3900 MPa
Dry Fibre Tensile Strength	Min 350 MPa

SYSTEM INFORMATION

Compatibility	SikaFiber®-012 can be used with all types of cement and is compatible with other admixtures.
Consumption	<p>ADDITION METHOD SikaFiber®-012 is supplied ready for use, and in measure quantities for addition to the concrete mix whether at the batching plant or on site.</p> <p>SPECIFICATION Concrete shall be manufactured using crack controlling additive such as SikaFiber®-012, a polypropylene fibre with an individual fibre length of 12mm and thickness of 18 microns.</p>
Recommended Dosage	0.6kg/m ³

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

USES

EFFECTS OF OVERDOSING

Overdosing of SikaFiber®-012 will generally produce a reduction in workability and an increase in the cohesiveness of the mix.

LIMITATIONS

Air entrainment - Air content of concrete will not be significantly increased

ECOLOGY HEALTH AND SAFETY

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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