

MEYCO[®] FIB SP540

Structural polypropylene fibre for reinforcing sprayed concrete

Description

This fibre is extruded from a natural Polypropylene homo polymer and formed into a crimped profile in order to anchor it in a cementitious matrix. It is thus capable of “reinforcing” the sprayed concrete and provides a toughness and ductility to the composite material.

Features and benefits

The MEYCO[®] FIB SP540 fibre is user friendly and is easy to dose into concrete mixes. It also has high resistance to acid/alkali attack and is therefore suitable for use in wet underground conditions. The MEYCO[®] FIB SP540 is recommended for the reinforcement of concrete and dry sprayed concrete applications.

Performance data and physical properties

Properties	Value
Polymer Type	Polypropylene
Class	II
Equivalent diameter	0.75mm
Length	40mm (also available in 30mm and 50mm)
Density	0.88 – 0.92g/cm ³
Colour	Translucent white / Black
Melting Point	150 – 170°C
Ignition Point	350°C
Tensile strength at yield	338 MPa
Elongation at yield	15-25%
Modulus of Elasticity	1550 MPa
Water Absorption	0
Acid/alkali resistance	High
EFNARC Plate test @ 9kg/m ³	700 - 800 Joules
Round Determinate Panel test @ 9kg/m ³ (ASTM 1550)	280 – 320 Joules

Dosage and batching

For dry mix sprayed concrete the fibres must be added to the concrete mixer with the dry

aggregate and cement and mixed for at least 2-3 minutes to ensure even distribution in the concrete. For site batched material the fibres should be blended well with the dry material before spraying.

Typically 9 kg/m³ will produce an energy absorption of 700 - 800 Joules (EFNARC Panel Test) or 280 – 320 Joules (ASTM 1550) for an in-situ 35 MPa sprayed concrete. However, site trials MUST be carried out to confirm the performance of the fibre and the sprayed concrete mix.

Packaging

The fibres are packed loose in 6kg transparent plastic bags or in cardboard boxes to suit dosing into the mixer. Alternative pack sizes are available upon request and should be specified when ordering.



Dry sprayed concrete with MEYCO[®] FIB SP540 used for slope stabilisation

Storage

The material is very stable, no foreseen hazards. Protect against fire.

MEYCO[®] FIB SP540

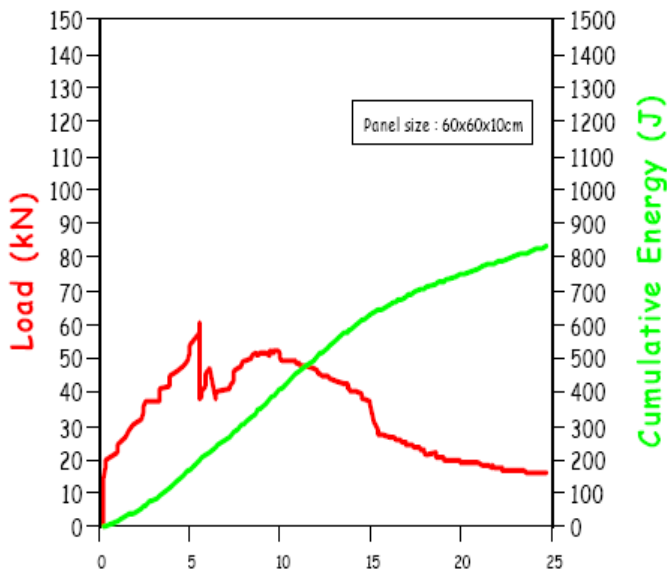
Safety precautions

MEYCO[®] FIB SP540 is extremely stable, presenting little hazard to health. However, in fire conditions, carbon monoxide, carbon dioxide and other gases or fumes may be evolved.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional info contact your local BASF representative. BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Performance



Typical performance of 9kg/m³ of MEYCO[®] FIB SP540 tested using the EFNARC panel test.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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