BASF
The Chemical Company

MEYCO® FIB SP650

Structural polypropylene fibre for reinforcing sprayed concrete

Description

This fibre is extruded from a natural Polypropylene homo polymer and formed into a flat profile with profiled surface in order to anchor it in a cementitious matrix. Due to a combination between the large number of fibres per kg, it's shape and anchoring capability with the concrete matrix they provide "reinforcing" to the sprayed concrete and create a toughness and ductility to the material.

Features and benefits

The MEYCO® FIB SP650 fibre is user friendly and 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 SP650 is recommended for the reinforcement of concrete and wet sprayed concrete applications.

Performance data and physical properties

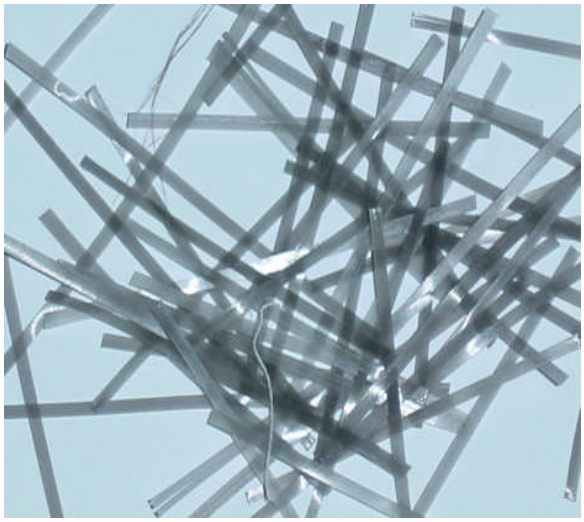
Properties	Value
Polymer Type	Polypropylene
Class	II
Fibre Cross section	0.234 mm^2
Dimensions (Width x Thickness)	1.95 x 0.25mm
Length	50mm (also available in 30mm and 40mm)
Density	0.88 – 0.92 g/cm^3
Colour	Translucent, Black
Melting Point	165^{O}C
Ignition Point	350^{O}C
Tensile strength at yield	287 MPa
Elongation at yield	15-25%
Modulus of Elasticity	1550 MPa
Water Absorption	0
Acid/alkali resistance	High
EFNARC Plate test @ 6kg/m^3	700 - 800 Joules
Round Determinate Panel test @ 6kg/m^3 (ASTM 1550)	280 – 320 Joules

Dosage and batching

The fibres must be added to the concrete mixer after the water and admixtures and mixed for at least 2-3 minutes to ensure even distribution in the concrete. There may be a slight slump loss after addition of the fibres. Do not add extra water. Adjust the dosage of admixture in the mix to allow for the addition of the fibres.

Typically 6 kg/m^3 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 6 kg 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.

MEYCO
Expanding Horizons Underground

The Chemical Company

MEYCO® FIB SP650

Storage

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

Safety precautions

MEYCO® FIB SP650 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

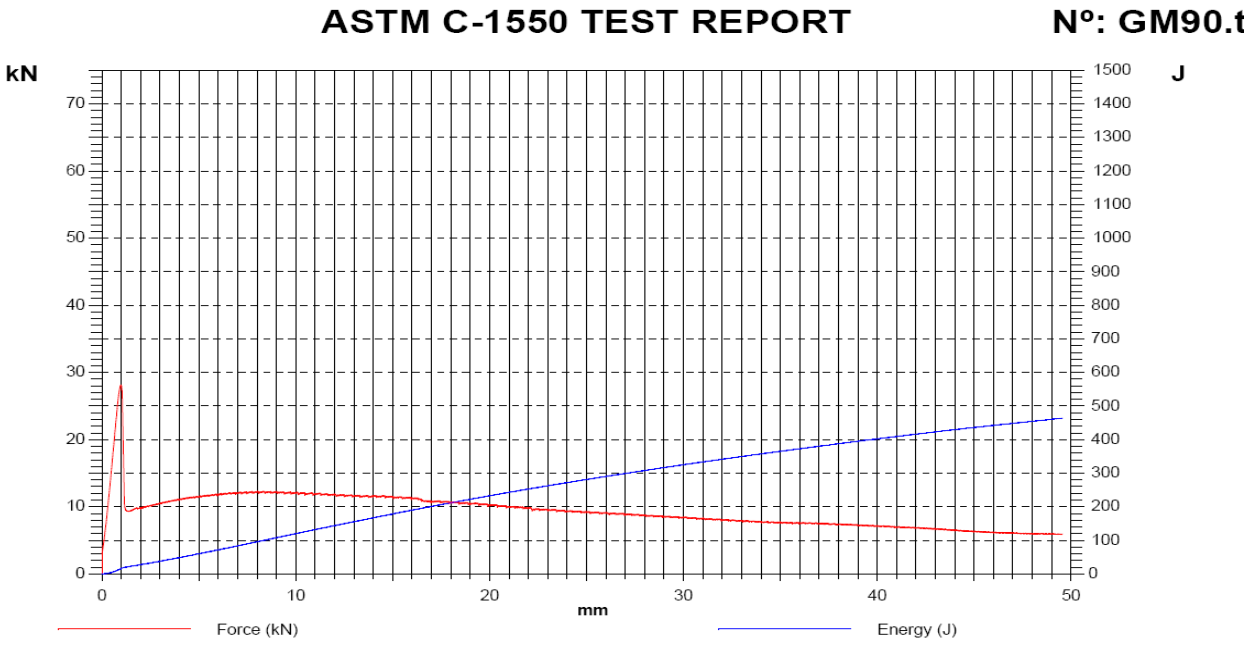
Field service, where provided, does not constitute supervisory responsibility. For additional info contact your local BASF representative. BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Performance

The graph below shows typical results for a Round Determinate Panel (ASTM1550) tested with 6g/m3 of MEYCO® FIB SP650 in a 30 MPa sprayed concrete mix.

03/2010 BASF_CC_UAE revised 11/2010

www.meyco.basf.com



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