

DESCRIPTION

TamFib SP fibres are a structural polymer based macro fibre for concrete. It turns concrete into a reinforced composite material, increasing flexural toughness and energy absorption performance. Impact and corrosion resistance are also enhanced.

TamFib SP fibres are manufactured to ISO 9001:2008, and conform to EN 14889-2:2006 - Polymer fibres for concrete - Definitions, specifications and conformity.

KEY BENEFITS

- › Excellent energy absorption performance
- › Very high flexural toughness
- › Reduces the spalling possibility of the concrete edges
- › Precise placement of steel mesh is not required, reducing the labour necessary to place and handle it
- › Improves the mixture by reducing the potential of concrete segregation
- › Reduces the overall bleed and consequential settlement cracking
- › Removes the potential risk of corrosion of steel crack control mesh
- › Cost effective versus steel mesh
- › Ecologic, safer and lighter than steel
- › Being polymer based they are effective permanent solutions as they do not corrode across cracks exposed to aggressive groundwater, or where de-icing salts are frequently used

TYPICAL APPLICATIONS

TamFib SP fibres can be used in concrete in tunnel and mines with the following applications:

- › Sprayed concrete ground support
- › Cast in-situ tunnel linings and base slabs
- › Pre-cast tunnel linings and associated elements
- › Industrial flooring applications at tunnel and mine sites
- › Mine haulage roadways

APPLICATION GUIDELINES

TamFib SP fibre is added to the concrete mixing drum during the batching process of all raw materials. Depending on the predetermined concrete mix design, there are various typical concrete dosages are between 3 and 8 kg per cubic meter of concrete, depending on performance requirements.

Concrete grade: C20/25 minimum

Cement type: Any combination including slag and fly ash extenders.

Aggregate Size: Any aggregate size as long as the nominal size is not greater than 25% of the thinnest section.

High performance superplasticisers from the TamCem range should be used to ensure efficient dispersion of fibres at controlled and low w/c's.

The standard rules for good concrete practice and placing must be strictly observed, with proper curing procedures as required by normal concrete mixes.

PACKAGING

TamFib SP fibres are bundled in 50 mm diameter, water soluble tightly wrapped pucks to aid batching and to promote fibre dispersion. The fibre pucks are supplied in various packaging sizes according to requirements.

Standard options are as follows:

- › 4 kg pucks in paper bags, in 36 x 16 kg carton boxes, palletised
- › 200 kg pucks in bulk carton box, palletised
- › 500 kg pucks in bulk big bag, palletised

STORAGE

TamFib SP fibres should be stored in a dry area.

HEALTH & SAFETY

TamFib SP fibres should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The SDS is available upon request from your local Normet representative.

TamFib SP48 / SP54 / SP60 / SP65

normet

CONSTRUCTION CHEMICALS

TECHNICAL DATA SHEET

Structural Polymer Macro Fibres for Reinforcing Concrete

TECHNICAL DATA

TamFib SP Fibres					
Physical property	Unit	SP48	SP54	SP60	SP65
Type of material	--	Polyolefin	Polyolefin	Polyolefin	Polyolefin
Fibre length	mm	48	54	60	65
Equivalent diameter	mm	0.70	0.70	0.70	0.70
No of fibres per kg	--	62,500	55,000	47,500	41,250
Specific gravity	g/cm ³	0.91	0.91	0.91	0.91
Melting point	°C	130 – 160	130 – 160	130 – 160	130 – 160
Tensile strength	MPa	540	540	540	540
Young modulus	GPa	10.4	10.4	10.4	10.4



Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product. Please note regional climatic conditions may cause a variation in the performance of the product. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous data. Please check with your local Normet office to confirm that this is current issue.