

MAPEFIBRE ST 40 PLUS

Structural polymer macro-fibres for concrete



DESCRIPTION OF PRODUCT

Mapefibre ST 40 Plus are 40 mm long polymer fibres with an embossed surface, ideal to improve the performance characteristics of concrete.

Mapefibre ST 40 Plus are a real alternative to traditional reinforcements (electrowelded mesh and/or steel fibres). Their use is particularly recommended in manufacturing precast concrete.

They are easy to use and low weight, and for this reason they are highly competitive in terms of application.

Mapefibre ST 40 Plus are alkali-resistant and are not subject to corrosion, including in aggressive environments.

Mapefibre ST 40 Plus have a special embossed surface conceived to grant an excellent grip to the cementitious matrix.

While the water-soluble film wrapping the pucks grant a perfect dispersion of the fibres in the concrete.

TECHNICAL CHARACTERISTICS

The use of **Mapefibre ST 40 Plus** improves concrete's ductility and resistance, as well as its residual strength after the first cracking.

WHERE TO USE

Mapefibre ST 40 Plus are particularly suitable:

- for creation of precast elements such as: Jersey barriers, electric cabins, tanks, manholes;
- for creation of precast panels;
- for manufacture of concretes for building quays, channels or sidewalks;
- for reinforcement of concrete industrial flooring.

APPLICATION PROCEDURE

Add **Mapefibre ST 40 Plus** in the mixer together with all the other elements (cement, aggregates, water and admixtures). Continue mixing until a homogeneous mixture is obtained.

COMPATIBILITY WITH OTHER PRODUCTS

Mapefibre ST 40 Plus are compatible with other admixtures used to produce high quality concrete, especially the following:

- All superplasticisers from the **Dynamon** range.
- **Mapecrete System**, innovative technology to manufacture concrete with high volumetric stability.
- **Mapeform ECO** form-release agents, to release precast elements from formworks.

DOSAGE

Add **Mapefibre ST 40 Plus** to concrete at a rate of 1-5 kg/m³, depending on the performance characteristics required.

PACKAGING

Mapefibre ST 40 Plus are supplied in 6 kg plastic bags of water-soluble "pucks".

STORAGE

Mapefibre ST 40 Plus can be stored for 24 months, protected from rain.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefibre ST 40 Plus is an article and referring to the current European regulations (Reg. 1906/2007/CE - REACH) does not require the preparation of a Safety Data Sheet. During use it is recommended to wear gloves and goggles and follow the safety requirements of the workplace.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Length of fibres:	40 mm
Equivalent diameter of fibres:	0.80 mm
Density:	0.91 g/cm ³
Fibres per kg:	> 50,000
Melting point:	+155°C - +165°C
Water absorption:	< 0.01%
Resistance to alkalis, acids and salts:	high
Tensile strength:	600 N/mm ²
Modulus of elasticity:	5600 N/mm ²



WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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