

MasterFiber 150

Structural polypropylene fiber for reinforcing sprayed concrete

MATERIAL DESCRIPTION

MasterFiber 150 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 the large number of fibres per kg, the fibre shape and its anchoring capacity into the concrete, **MasterFiber 150** adds toughness and ductility to the concrete.

FEATURES AND BENEFITS

MasterFiber 150 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.

MasterFiber 150 is recommended for the reinforcement of concrete and wet sprayed concrete applications.

PERFORMANCE DATA AND PHYSICAL PROPERTIES*

Properties listed are for guidance and are not a guarantee of performance.

Material	Polypropylene 100% (translucent, black)
Design	Monofilament
Equivalent diameter	0.62mm
Length	50mm (also available in 40 & 65mm)
Tensile strength at yield	394 MPa
Modulus of elasticity	4.4 GPa
Density	0.91 g/cm ³
Acid / alkali resistance	High
Water absorption	Nil
Number of fibres per kg	Approximately 73,000
Melting point	160°C
Ignition point	590°C
EFNARC Plate test @ 6kg/m ³	700 – 800 Joules
Round Determinate Panel test @ 6kg/m ³ (ASTM 1550)	280 – 320 Joules

The technical Data reflected here is the result of statistical information and does not represent guaranteed minimums.

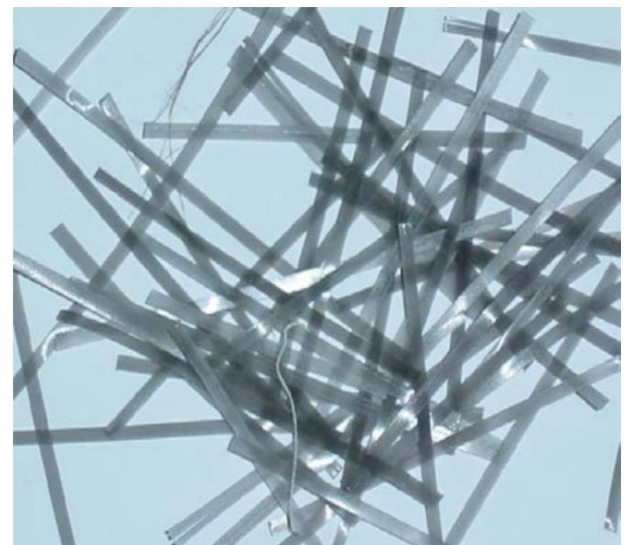
If control data is required, this can be obtained by requesting the sales specification from our technical department.

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 the addition of the fibres.

Typically, 6 kg/m³ will produce 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.

STORAGE

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

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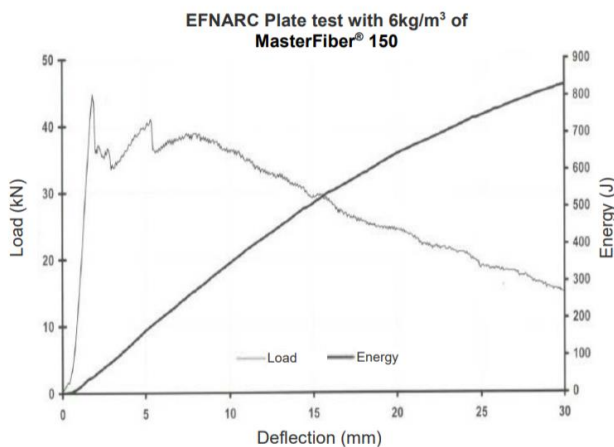
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SAFETY PRECAUTIONS

MasterFiber 150 is extremely stable, presenting little hazard to health. However, in fire conditions, carbon monoxide, carbon dioxide and other gases or fumes may be evolved.

PERFORMANCE

The graph below shows typical results for the EFNARC test on a Plate with 6 kg/m³ of **MasterFiber 150** in a C30/37 sprayed concrete mix.



HANDLING AND TRANSPORT

The usual precautions and measures should be taken for handling any chemical substance. For example, use protective gloves and glasses. Wash hands before a break and on finishing work. Do not eat, drink or smoke during application.

The disposal of the product and its packaging is the responsibility of the end user and should be carried out according to current legislation.

DISCLAIMER

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

IMPORTANT NOTES

- Prior tests are recommended before using the product.
- Do not use higher or lower dosages than those recommended without first consulting our Technical Department.

For more information, please consult the safety data sheet of this product.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory-controlled tests.