**Description**

Forta-Ferro 54mm fibre is a high density, high modulus polymeric fibre designed to impart reinforcement to a variety of concrete mixes. It is designed for use in structural concretes such as large section precast units, parking areas and industrial flooring.

**Applications**

Forta-Ferro 54mm fibre when added to the concrete mix will significantly improve its durability and residual strength. Tensile and impact strengths are also considerably improved. Unlike steel fabric and steel fibre reinforcement, there are no problems of corrosion associated with this polymeric product. The presence of Forta Ferro in a concrete mix also improves fire resistance.

Forta-Ferro 54mm may be used to add reinforcement to mixes where none is present, or to partially replace traditional steel reinforcement.

**Benefits in Concrete**

- Increased impact resistance
- Increased tensile strength
- Improved resistance to spalling and edge damage
- Plastic Shrinkage Crack Reduction
- Fire Resistance
- Improved Residual Strength*
- Potential to reduce section thickness
- Non corrosive and non rusting

**Properties**

<table>
<thead>
<tr>
<th>Nature</th>
<th>Synthetic Fibre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Grey</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.91 g/cm³</td>
</tr>
<tr>
<td>Fibre Length</td>
<td>54.0mm</td>
</tr>
<tr>
<td>Absorption</td>
<td>Nil</td>
</tr>
<tr>
<td>Acid &amp; Salt Resistance</td>
<td>Excellent</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>600 MPa</td>
</tr>
<tr>
<td>Melting Point</td>
<td>160°C</td>
</tr>
</tbody>
</table>

**Addition Rates**

Dosage rates vary depending on the mix, aggregate type and desired properties, and should be determined by site trials. As a guide, a typical dosage rate of 2.0 to 7.0 kilos per cubic metre of concrete may be employed.

**Standards**

Forta-Ferro 54mm fibre complies with BS EN 14889 pt 2 'Fibres for Concrete' and the requirements of ASTM C 1116.

* Residual Strength is that strength which the specimen retains following the cracking of the concrete. In non-reinforced mixes this property does not exist.
Compatibility

**Forta-Ferro 54mm fibre** is compatible with all types of EN 197 cement systems and offers a wide range of benefits particularly in the production of concrete.

Storage

Store the product in a dry environment, moisture ingress will cause the water soluble bags to degrade.

Handling

Please refer to the **Forta-Ferro 54mm fibre** Material Safety Data Sheet but in line with normal handling procedures, personal protective equipment should be worn.

Packaging

**Forta-Ferro 54mm fibre** is packed in 1kg mixer ready bags, 16 bags per box, 24 boxes per pallet. Other package sizes may be available on request.

Alternatively **Forta Ferro 54mm** can be delivered loose for use with the OSCRETE Forta Ferro Fibre dispensing machine.

Notes

For maximum strength gain and the most effective dispersion of the fibres, OSCRETE recommend the use of a high performance admixture to complement the fibres.

Please consult the OSCRETE Technical Department for advice on admixture selection.

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**Disclaimer**

The physical properties quoted are typical, and should not be taken as a specification. The information supplied in our literature is based on data and experience and is given in good faith. Our policy is one of continuous research and development and we reserve the right to update this information at any time; customers should therefore ensure they have the latest issue. Whilst we guarantee the consistent high quality of our products, we have no control over the circumstances in which our materials are used, site conditions or the execution of the work and are therefore unable to accept any liability for any loss or damage which may arise as a result thereof. Materials are supplied in accordance with our standard conditions of sale.

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PDS 7108 Rev 03 18/01/2016