Expanfiber

High performance micro polypropylene fiber

Uses
Expanfiber* is primarily used as a crack controlling additive for cementitious materials. Typical applications are:

- crack control in ready mix concrete, precast concrete, conventional shotcrete, screeds, rendering mortars, micro-silica concrete
- concrete slabs, pavements, driveways, imprinted concrete
- water retaining structures, marine concrete etc.
- patch repair, thin section walling etc.

Advantages
- Cost effective - replaces anti crack wire mesh
- User friendly - decreases construction time and labor
- Versatile - Inhibits intrinsic cracking in concrete, improves
- finishing characteristics, concrete durability and acts as a rust proofer.
- Disperses uniformly throughout the mix and does not rust.

Specification
Where shown on the contract documents, concrete shall be manufactured using Expanfiber*, a high performance micro polypropylene fiber. The crack controlling additive shall meet the requirements of ASTM C111.6 and have a tensile strength of minimum 300 N/mm²

Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Virgin Polypropylene fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity</td>
<td>0.91 g/cm³</td>
</tr>
<tr>
<td>Alkali content</td>
<td>Nil</td>
</tr>
<tr>
<td>Sulphate content</td>
<td>Nil</td>
</tr>
<tr>
<td>Air Entrainment</td>
<td>Air content of concrete will not be significantly increased</td>
</tr>
<tr>
<td>Chloride content</td>
<td>Nil</td>
</tr>
<tr>
<td>Fiber thickness</td>
<td>18 and 30 microns</td>
</tr>
<tr>
<td>Youngs Modulus</td>
<td>5500 - 7000 MPa</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>350 N/mm²</td>
</tr>
<tr>
<td>Melting Point</td>
<td>160°C</td>
</tr>
</tbody>
</table>

Dosage
The optimum dosage of Expanfiber* to meet specific requirements should always be determined by trial mixes using the materials and conditions that will be experienced in use.

As a guide to trials, the following dosage levels of Expanfiber* are recommended.

Product

<table>
<thead>
<tr>
<th>Fiber length</th>
<th>12mm</th>
<th>6mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate size, max</td>
<td>32mm</td>
<td></td>
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</tbody>
</table>

Use at other dosages
Dosages outside the typical ranges quoted above can be used to meet particular requirements, Contact Fospak for advice.

Effects of overdosing
Overdosing of Expanfiber* will generally produce a reduction in workability and an increase in the cohesiveness of the mix.
Technical support

Fospak offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Estimating

Supply

Expanfiber*: 0.60 kg and 0.91 kg bags
(12mm & 6mm fibers)
All bags are supplied in cardboard box containers.

Storage

Should be stored in warehouse conditions below 35°C.

Additional Information

Fospak manufactures a wide range of complementary products which include:

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialized flooring materials

Fospak additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fospak’s ‘Systematic Approach’ to concrete repair features the following:

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fospak office - as below.

* Denotes the trademark registered

REGIONAL SALES OFFICES IN PAKISTAN:

Fospak (Pvt) Ltd.
Head Office
702, Business Avenue,
Block-6, PECHS.
Shahra-e-Faisal,
Karachi, Pakistan
Tel # +92-21-34528477, 34529859
Fax # +92-21-34522436
Email info.khi@fospak.com.pk

Lahore Sales Office
2nd Floor Sarwar Shaheed Plaza,
Cavalry Ground,
Main Boulevard,
Lahore Cantt, Lahore.
Tel # +92-42-36675773
Fax # +92-42-36675838
Email info.lhr@fospak.com.pk

Rawalpindi Sales Office
1st Floor, Al-Harmain Plaza,
Main Murree Road,
Rawalpindi
Tel # +92-51-9290592
Fax # +92-51-9290590
Email info.isb@fospak.com.pk

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