LAMPIRAN A
DATA SIKAFIBRE
LAMPIRAN B

DOKUMENTASI PELAKSANAAN
PENGECORAN DAN PENGUJIAN
BALOK
LAMPIRAN C
PERHITUNGAN KEBUTUHAN FIBER PADA BETON
SikaFibre®
Polypropylene Fibres for Concrete

Description
SikaFibre is high quality micro monofilament polypropylene fibres. It is designed to minimize and control plastic shrinkage cracks in concrete. SikaFibre is available in pre-measured, ready to use degradable bags for 1 m³ of concrete.

Use
SikaFibre reinforces fresh concrete and reduce the incidence of shrinkage cracking in pre-hardening stage.

SikaFibre is used in:
- Slabs
- Pavements
- Precast concrete products
- Heavy-duty industrial floors
- Overlays
- Shotcrete
- Mortar screeds and plasters

Note: Polypropylene fibres are not intended to replace reinforcement steel.

Advantages
Thanks to their fineness and special-surface treatment, SikaFibre is uniformly distributed to provide internal reinforcement to:
- Reduce plastic shrinkage cracking
- Improve fresh concrete cohesion
- Improve impact and abrasion resistance
- Improve concrete durability

Instructions for Use
Put 1 (one) bag of 0.6 kg SikaFibre per m³ concrete directly into the mixture. A mixing time of 3 to 5 minutes is necessary to ensure that the bag is fully degraded and ensure uniform fibre dispersion throughout the mix.

SikaFibre is compatible with all Sika admixtures. The standard procedures for placing, finishing and curing concrete shall be followed. In addition, proper reinforcement and joint spacing should be observed.

Product Data

<table>
<thead>
<tr>
<th>Base</th>
<th>Polypropylene fibres with surface agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Natural</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.91 g/cm³</td>
</tr>
<tr>
<td>Fibre Length</td>
<td>12 mm</td>
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<tr>
<td>Fibre Diameter</td>
<td>18 micron – nominal</td>
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<tr>
<td>Tensile strength</td>
<td>300 – 440 MPa</td>
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<tr>
<td>Elastic Modulus</td>
<td>6000 – 9000 N/mm²</td>
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<tr>
<td>Water absorption</td>
<td>Nil</td>
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<tr>
<td>Softening Point</td>
<td>160 °C</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>3 years if stored in original unopened packaging in cool, dry condition</td>
</tr>
<tr>
<td>Packaging</td>
<td>0.6 kg/bag at 40 bags per box</td>
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</tbody>
</table>
Health and Safety
The product is safe to handle, no restrictions
The product is classified: Non Toxic

Legal Notes
The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika’s current knowledge and experience of the product when properly stored, handled and applied under normal conditions in accordance with Sika’s recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.
Proses Pengecoran

Pengujuan Slump Test
Sika Fibre

Penguian Balok
Hydraulic Jack

Strain Meter
Perhitungan pemakaian fiber:

1 m$^3$ beton = 600 gr

Volume Balok = 0,15 x 0,2 x 3,2 = 0,096 m$^3$

Volume Silinder = 6 x 3,14 x 0,075 x 0,075 x 0,3 = 0,032 m$^3$

Total Volume Beton = 0,096 + 0,032 = 0,128 m$^3$

Jumlah Fiber yang Dibutuhkan = 600 x 0,128 = 76,8 gr ≈ 80 gr