**PRODUCT DATA SHEET**

SikaWrap®-930 G

WOVEN UNIDIRECTIONAL GLASS FIBRE FABRIC, DESIGNED FOR STRUCTURAL STRENGTHENING APPLICATIONS AS PART OF THE SIKA® STRENGTHENING SYSTEM.

**PRODUCT DESCRIPTION**

SikaWrap®-930 G is a unidirectional woven glass fibre fabric designed for installation using the wet application process.

**USES**

SikaWrap®-930 G may only be used by experienced professionals.

Structural strengthening of reinforced concrete, masonry, brickwork and timber elements or structures, to increase flexural and shear loading capacity for:
- Improved seismic performance of masonry walls
- Increasing the strength and ductility of columns
- Enabling changes in use / alterations and refurbishment
- Correcting structural design and / or construction defects
- Increasing resistance to seismic movement
- Improving service life and durability
- Structural upgrading to comply with current standards
- Blast mitigation (accidents or terrorism)
- Electrical environments that ask for non-conductive material

**CHARACTERISTICS / ADVANTAGES**

- Manufactured with heat-set weft fibres to keep the fabric stable
- Multifunctional fabric for use in many different strengthening applications
- Flexible and accommodating of different surface planes and geometry (beams, columns, chimneys, piles, walls, soffits, silos etc.)
- Low density for minimal additional weight
- Extremely cost effective in comparison to traditional strengthening techniques
- Very low electrical conductivity

**PRODUCT INFORMATION**

<table>
<thead>
<tr>
<th>Construction</th>
<th>Fibre orientation</th>
<th>0° (unidirectional)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Warp</td>
<td>White glass fibres 98 %</td>
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<tr>
<td></td>
<td>Weft</td>
<td>White thermoplastic heat-set fibres 2 %</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Fibre type</th>
<th>E-glass fibres</th>
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<table>
<thead>
<tr>
<th>Packaging</th>
<th>Fabric length per roll</th>
<th>Fabric width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 roll in cardboard box</td>
<td>≥ 50 m</td>
<td>600 mm</td>
</tr>
</tbody>
</table>
Shelf Life
24 months from date of production

Storage Conditions
Store in undamaged, original sealed packaging, in dry conditions at temperatures between +5 °C and +35 °C. Protect from direct sunlight.

Dry Fibre Density
2.56 g/cm³

Dry Fibre Thickness
0.363 mm (based on total glass content)

Area Density
930 g/m² + 20 g/m² (glass fibres only)

Dry Fibre Tensile Strength
2 500 N/mm² (measured on roving) (EN 2561)

Dry Fibre Modulus of Elasticity in Tension
72 000 N/mm² (EN 2561)

Dry Fibre Elongation at Break
2.7 % (measured on roving) (EN 2561)

TECHNICAL INFORMATION

Laminate Nominal Thickness
0.363 mm

Laminate Nominal Cross Section
363 mm² per m width

Laminate Tensile Strength
<table>
<thead>
<tr>
<th>Average</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 500 N/mm²</td>
<td>1 200 N/mm²</td>
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</tbody>
</table>

Laminate Tensile Modulus of Elasticity
<table>
<thead>
<tr>
<th>Average</th>
<th>Characteristic</th>
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</thead>
<tbody>
<tr>
<td>70 kN/mm²</td>
<td>68 kN/mm²</td>
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</tbody>
</table>

* modification: sample with 50 mm Values in the longitudinal direction of the fibres Single layer, minimum 27 samples per test series

Laminate Elongation at Break
Strain 2.14 % (EN 2561)

Tensile Resistance
<table>
<thead>
<tr>
<th>Average</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>545 kN/m</td>
<td>436 kN/m</td>
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</table>

Tensile Stiffness
<table>
<thead>
<tr>
<th>Average</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.4 MN/m</td>
<td>24.7 MN/m</td>
</tr>
<tr>
<td>25.4 kN/m per % elongation</td>
<td>24.7 kN/m per % elongation</td>
</tr>
</tbody>
</table>

SYSTEM INFORMATION

System Structure
The system build-up and configuration as described must be fully complied with and may not be changed.
Concrete substrate adhesive primer Sikadur®-330
Impregnating / laminating resin Sikadur®-300
Structural strengthening fabric SikaWrap®-930 G

For detailed information on Sikadur®-330 or Sikadur®-300, together with the resin and fabric application details, refer to the Sikadur®-330 or Sikadur®-300 Product Data Sheet.

APPLICATION INFORMATION

Consumption
Wet application with Sikadur®-300, primer Sikadur®-330
Primer layer 0.6–0.8 kg/m²
Fabric layers 1.0 kg/m²

Refer to the relevant Technical Information Manual for further information.
APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY
Minimum substrate tensile strength: 1.0 N/mm² or as specified in the strengthening design. Refer to the relevant Technical Information Manual for further information.

SUBSTRATE PREPARATION
Concrete must be cleaned and prepared to achieve a laitance and contaminant free, open textured surface. Refer to the relevant Technical Information Manual for further information.

APPLICATION METHOD / TOOLS
The fabric can be cut with special scissors or a Stanley knife (razor knife / box-cutter knife). Never fold the fabric. SikaWrap®-930 G is applied using the wet application process. Refer to the relevant Technical Information Manual for details on the impregnating / laminating procedure.

FURTHER DOCUMENTS
Technical Information Manuals
Ref. 850 41 03: SikaWrap® manual wet application
Ref. 850 41 04: SikaWrap® machine wet application

LIMITATIONS
• SikaWrap®-930 G shall only be applied by trained and experienced professionals.
• A specialist structural engineer must be consulted for any structural strengthening design calculation.
• SikaWrap®-930 G fabric is coated to ensure maximum bond and durability with the Sikadur® adhesives / impregnating / laminating resins. To maintain and ensure full system compatibility, do not interchange different system components.
• SikaWrap®-930 G can be over coated with a cementitious overlay or other coatings for aesthetic and / or protective purposes. The over coating system selection is dependent on the exposure and the project specific requirements. For additional UV light protection in exposed areas use Sikagard®-550 W Elastic, Sikagard® ElastoColor-675 W GB or Sikagard®-680 S.
• Refer to the Technical Information Manual for SikaWrap® manual wet application (Ref. 850 41 03) or SikaWrap® machine wet application (Ref. 850 41 04) for further information, guidelines and limitations.

VALUE BASE
All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS
Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY
REGULATION (EC) NO 1907/2006 - REACH
This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w)

LEGAL NOTES
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