

**BUILDING TRUST** 

# PRODUCT DATA SHEET

## SikaWrap<sup>®</sup>-930 G

Glass fibre, unidirectional fabric with a fibre area density of 930 g/m $^{_2}$  designed for wet application



### DESCRIPTION

SikaWrap<sup>®</sup>-930 G is a unidirectional woven glass fibre fabric. The Product is made of glass fibres with an area density of 930 g/m<sup>2</sup>. It is used to increase the flexural and shear loading capacity of elements and structures. The fabric is designed for installation using the wet application process.

#### USES

SikaWrap<sup>®</sup>-930 G may only be used by experienced professionals.

## SikaWrap<sup>®</sup>-930 G can only be installed by a Sika New Zealand Approved Contractor.

SikaWrap<sup>®</sup>-930 G is used as a reinforcement fabric for externally bonded structural strengthening systems on concrete, masonry and wooden substrates.

Externally bonded structural strengthening systems are used for:

- Increasing the flexural and shear loading capacity of elements and structures
- Enhancing the load-carrying capacity or ductility of structural members in compression
- Replacing missing steel reinforcement
- Structural upgrading of weak concrete elements or structures

- Improving impact resistance
- Passive strengthening for seismic event protection
- Please note:
- A specialist structural engineer must be consulted for any structural strengthening design calculation.

## **CHARACTERISTICS / ADVANTAGES**

- Improves the service life of a structure
- Manufactured with thermo-welded weft fibres to keep the fabric stable
- Multifunctional fabric for use in many different strengthening applications
- Flexible and accommodating to different surface planes and geometry (such as beams, columns, chimneys, piles, walls, soffits and silos)
- Low density for minimal additional weight
- Very low electrical conductivity

## PRODUCT INFORMATION

Construction	Fibre orientation Warp (longitudinal)	0° (longitudinal, unidirectional) White glass fibre, 98 %	
	Weft (transversal)	White thermoplastic heat-set fibre, 2 %	
Packaging	Rolls, 500 mm wide	40 m	
Fibre Type	E-glass fibres		

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Shelf Life	24 months from date of pro	oduction	
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Protect the Product from direct sunlight. Always refer to packaging.		
Dry Fibre Thickness	0.363 mm		
Area Density	(930 ± 20) g/m <sup>2</sup>		
Dry Fibre Density	2.56 g/cm <sup>3</sup>		
TECHNICAL INFORMATION			
Dry Fibre Modulus of Elasticity in Ten- sion	72 kN/mm²		(ISO 10618)
Dry Fibre Tensile Strength	2500 N/mm²		(ISO 10618)
Dry Fibre Elongation at Break	2.7 %		(ISO 10618)
Laminate Nominal Thickness	0.363 mm		
Laminate Nominal Cross Section	363 mm <sup>2</sup> per metre width		
Laminate Tensile Strength	Mean 5 % characteristic Mean	1500 N/mm <sup>2</sup> 1200 N/mm <sup>2</sup> 1500 N/mm <sup>2</sup>	(EN 2561) (ASTM D3039)
	Characteristic (ACI 440.2R) All values refer to the releva	<u>1200 N/mm<sup>2</sup></u> ant design nominal thickness.	
Laminate Modulus of Elasticity in Ten- sion	Mean 5 % characteristic	70 kN/mm² 68 kN/mm²	(EN 2561)
	Mean All values refer to the releva	70 kN/mm <sup>2</sup> ant design nominal thickness.	(ASTM D3039)
Laminate Elongation at Break in Tension		2.14 %	(EN 2561)

#### 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 <sup>®</sup> Hex-300 or Sikadur <sup>®</sup> -300	
	Impregnating or laminating resin	Sikadur <sup>®</sup> Hex-300 or Sikadur <sup>®</sup> -300	
	Structural strengthening fabric	SikaWrap <sup>®</sup> -930 G	
	For detailed information on Sikadur <sup>®</sup> Hex-300 or Sikadur <sup>®</sup> -300, together with the resin and fabric application details, please refer to the individual Product Data Sheets and the relevant Method Statement.		

## **APPLICATION INFORMATION**

Consumption	WET APPLICATION WITH	
		SikaWrap®-930 G
	Primer	0.6–0.8 kg/m <sup>2</sup>
	Fabric layers	1.0 kg/m <sup>2</sup>

## BASIS OF PRODUCT DATA

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.

## FURTHER DOCUMENTS

Reference must be made to the following Sika® Method Statements:

850 41 03 Method Statement SikaWrap<sup>®</sup> manual wet

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## **ECOLOGY HEALTH AND SAFETY**

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)

## **APPLICATION INSTRUCTIONS**

#### SUBSTRATE QUALITY

Tensile adhesion strength of the substrate must be a minimum of 1.0 N/mm<sup>2</sup> or as specified in the strengthening design. If necessary, verify this by applying a test area first.

Refer to the relevant SikaWrap<sup>®</sup> Method Statement for further information.

#### SUBSTRATE PREPARATION

Clean and prepare concrete to achieve a laitance-free, contaminant-free, open-textured surface. Refer to the relevant SikaWrap<sup>®</sup> Method Statement for further information.

#### APPLICATION

#### IMPORTANT

#### Application by trained personnel

The application of this Product must only be carried out by an applicator that is trained or approved by Sika. The applicator must also be experienced in this type of application.

#### IMPORTANT

#### Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

#### IMPORTANT

#### Do not interchange different system components

SikaWrap<sup>®</sup> fabrics are coated to ensure maximum bond and durability with the Sikadur<sup>®</sup> adhesives, impregnating and laminating resins. To maintain and ensure full system compatibility, do not interchange different system components. Sika (NZ) Limited

85-91 Patiki Road Avondale, Auckland 1026 New Zealand 0800 745 269 www.sika.co.nz



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- 1. IMPORTANT Never fold the fabric. Cut the fabric with special scissors, a razor knife or a box-cutter knife.
- Apply the SikaWrap fabric using the wet application process. Refer to 850 41 03 Method Statement SikaWrap<sup>®</sup> manual wet application.

OVERCOATING SIKAWRAP® FABRICS SikaWrap® fabrics can be overcoated with a cementitious overlay or other coatings for aesthetic or protective purposes. The selection of the overcoating system depends on the exposure and project-specific requirements.

For additional protection from UV light in exposed areas, use Sikagard<sup>®</sup>-550 W Elastic.

### 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.

## **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 products 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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