

# SYSTEM DATA SHEET

# Sikaplan® WP Tape System

TERMINATION, FIXING AND SEALING TAPE FOR USE WITH THE SIKAPLAN® WP MEMBRANE SYSTEM

## **DESCRIPTION**

Sikaplan® WP Tape-200 is a PVC based waterproof sealing tape with modified properties for terminations and fixings of Sikaplan® WP membranes.

#### **USES**

As a waterproofing sealing tape that is heat weldable to Sikaplan® WP waterproofing membranes - Series 1100, 2101 and 2110, based on PVC.

The Sikaplan® WP Tape-200 is used to connect the Sikaplan® WP membranes to the substrate and itself at edges and terminations, thereby maintaining a high quality watertight seal. It is specially designed for waterproofing in cross-sections of tunnels with special high performance, secure terminations of the Sikaplan® WP Membrane System.

# **CHARACTERISTICS / ADVANTAGES**

- Very good bonding attributes
- Long-term water resistance
- Optimized workability, thermally weldable
- Optimized flexibility, plus tensile strength and multiaxial-elongation
- Flexible even in cold temperatures
- Prevents lateral water underflow

# **APPROVALS / STANDARDS**

 Hydrostatic pressure tested to confirm functionality, according to Schälicke, H. and Gerstewitz, T. by MFPA Weimar, Germany - Test report No. B 16.14.047.05

#### PRODUCT INFORMATION

Chemical base	Polyvinylchloride (PVC-I	P)		
Packaging	Roll size	200mm (width) × 20m (length)		
Appearance / Colour	Sikaplan® WP Tape-200, homogenous, supplied in rolls			
	Thickness	2 mm including 0.6mm signal layer		
	Colour	signal layer - white		
		bottom base layer - black		
Shelf life	18 months from date of	18 months from date of production		
Storage conditions	Rolls must be stored in their original packaging and in cool and dry conditions at temperatures between +5 °C and 35 °C. They must be protected from direct sunlight, rain, snow and ice, etc.  Do not stack pallets of rolls during transport or storage.			
Thickness	2.00 mm (-5 %/+10 %)	(EN 1849-2)		

System Data Sheet Sikaplan® WP Tape System July 2017, Version 01.01 020703900000000001

## **TECHNICAL INFORMATION**

Tensile Strength	> 14 N/mm <sup>2</sup>	(EN ISO 527)
Modulus of Elasticity in Tension	≤ 20 N/mm²	(EN ISO 527)
Elongation	≥ 300 % (machine / cross direction)	(EN ISO 527)
Tear Strength	≥ 42 kN/m (V = 50mm/min)	(ISO 34 Method B)
Reaction to Fire	Class E	(EN ISO 11925-2 / EN 13501-1)
Service Temperature	-10 °C min. / +35 °C max.	

#### **SYSTEMS**

System Structure	The Sikaplan® WP Tape System consists of a modified PVC tape and Sikadur®-31 EF or Sikadur-Combiflex® epoxy adhesives.  One grade of the tape is available:  Sikaplan® WP Tape-200 (width: 200mm) Suitable adhesives are:  Sikadur®-31 EF or the suitable Sikadur-Combiflex® adhesives types:  Sikadur-Combiflex® adhesive (N)  Sikadur-Combiflex® adhesive (R)  Note: This system configuration as described must always be fully complied with and must not be changed.  Ancillary Products:  Sikaplan® WP Membrane Systems  Sarna Seam Cleaner
Compatibility	Sikaplan® WP Tape System is compatible with Sikaplan® WP 1100 Series, Sikaplan® WP 2101 Series and Sikaplan® WP 2110 Series

#### APPLICATION INFORMATION

Consumption	~1.0 kg/m of Sikadur*-31 EF <u>Note:</u> The consumption is dependent on substrate surface roughness, size of exposed aggregate, thickness required, e.t.c.
Ambient Air Temperature	+5 °C min. / +55 °C max. For installation below +5 °C ambient temperature, special measures are required in accordance with relevant national regulations and Sika guidelines.

#### **APPLICATION INSTRUCTIONS**

### **SUBSTRATE QUALITY**

The substrate must be mechanically prepared e.g. by blast-cleaning, to be free from any cement laitance, damaged concrete, old surface treatments or coatings, then all loose or friable particles must be removed to achieve a contaminant free, open textured surface. The substrate must be dry or maximum mat damp. The substrate temperature must be min 3 Kelvin above dew point conditions and condensation on the freshly applied material must be avoided.

#### Application of adhesive

Please refer to the relevant Product Data Sheet for the specific adhesive that is to be used.

#### **APPLICATION METHOD / TOOLS**

For detailed information please refer to the Sikaplan® WP Tape-200 Method Statement

#### **Application of the Tape**

- Clean the surface of the black base layer side of the Sikaplan® WP Tape-200 with Sarna Seam Cleaner.
- Apply the mixed Sikadur®-31 EF adhesive onto the prepared substrate
- Apply the Sikaplan® WP Tape-200 within the open time of the adhesive. Press the tape firmly, without trapping air, into the adhesive.

<u>For vertical or overhead application</u>, the Sikaplan® WP Tape-200 must be supported until the adhesive has hardened to prevent it peeling away from the adhesive and to ensure a good bond.

#### Connecting the ends of Sikaplan® WP Tape-200

- The tape ends are connected by hot air thermal welding. The weld areas must be prepared by roughening the black surface of the Sikaplan® WP Tape-200 with scotch brite pads or fine sand-paper.
- Sikadur®-31 EF must be put onto the prepared weld

System Data Sheet Sikaplan® WP Tape System July 2017, Version 01.01 020703900000000001



2/4

BUILDING TRUST

area to prevent water channels before pushing it into the fresh prepared Sikadur®-31 EF concrete surface. Sikaplan® WP Tape System end overlaps have to be min. 40 - 50 mm.

# Connecting the Sikaplan® WP Tape-200 and Sikaplan® WP membrane

- The Sikaplan® WP Tape-200 and Sikaplan® WP membrane must be clean and dry, ready for hot- air welding.
- The weld area of the Sikaplan® WP Tape-200 (white surface of Sikaplan® WP Tape System) must not be prepared by roughening or other surface preparation. Sarna Seam Cleaner can be used for cleaning the Sikaplan® WP Tape System white surface in case of dirt.
- Welding parameters must follow up the standard steps as described in the Sikaplan® WP PVC-P Sheet Waterproofing Membranes Application Manual, or the Method Statement for Sikaplan® WP Tape-200.

#### **LIMITATIONS**

- Installation works must only be carried out by Sika® trained contractors, experienced in the waterproof lining of tunnels and below ground structures.
- Particular protective precautions must be taken for installation in wet conditions, at temperatures below +5 °C, and when the relative air humidity (RH) is more than 80 %. The effectiveness of the measures must be proven.
- Fresh air ventilation must always be ensured, especially when working (welding) in closed rooms, and in accordance with all local regulations.
- The Sikaplan® WP Tape System is not UV stabilized and cannot be installed on structures permanently exposed to UV light and weathering.
- The Sikaplan® WP Tape System is not bitumen resistant
- Cleaning of Sikaplan® WP Tape System must only be done with clean cloths soaked with Sarna Seam Cleaner.
- Recommended water pressure up to 8 bar, for higher waterpressure please contact Sika technical service

Please also refer to the Sikaplan® WP Tape-200 Method Statement.

#### **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. 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 sheed 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**

The information, and, in particular, the recommendations relating to the application and enduse 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.

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System Data Sheet
Sikaplan® WP Tape System
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System Data Sheet
Sikaplan® WP Tape System
July 2017, Version 01.01
02070390000000001

