

## PRODUCT DATA SHEET

# Sikaplan® WT 4220-18 H

1.8 mm thick FPO sheet waterproofing membrane for water tanks

### DESCRIPTION

Sikaplan® WT 4220-18 H is a 1.8 mm thick homogeneous sheet waterproofing membrane. It is based on flexible polyolefin (FPO-PE).

### USES

Sikaplan® WT 4220-18 H may only be used by experienced professionals.

The Product is designed for:

- Lining of enclosed potable water tanks
- Lining of enclosed non-potable water tanks (sprinkler tanks, etc.)

Please note:

- Do not use the Product in areas where it is exposed to weathering or UV-light.
- The Product is not suitable for permanent exposure to liquids with temperatures above +40 °C.
- The Product is not resistant to frequent or permanent exposure to water with a content of free chlorine exceeding 0.8 mg/l.

### CHARACTERISTICS / ADVANTAGES

- Certified for contact with water for human consumption
- Easy to clean and low maintenance
- Proven performance over decades
- Contains no fungicides, heavy metals, halogens or plasticisers
- Good resistance to ageing
- Good resistance to microbial degradation
- High tensile strength and elongation
- Hot air weldable
- Flexible in very cold temperatures
- Suitable for contact with acidic (soft) water

### APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 13361 — Geosynthetic barriers — Characteristics required for use in the construction of reservoirs and dams
- CE Marking and Declaration of Performance to EN 13967 — Flexible sheets for waterproofing - Damp proofing and basement tanking
- Water Regulations Material Approval BS 6920-1 (WRAS UK)

## PRODUCT INFORMATION

<b>Composition</b>	FPO/PE	
<b>Packaging</b>	Roll width	1.08 m / 0.54 m
	Roll length	specified / 5 m
<b>Appearance / Colour</b>	Surface texture	smooth
	Colour	blue
<b>Shelf life</b>	5 years from date of production	
<b>Storage conditions</b>	The Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5 °C and +35 °C. Protect the Product from direct sunlight and weathering. Store in a horizontal position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to packaging.	
<b>Effective thickness</b>	1.80 mm (- 0.09 mm / + 0.18 mm)	(EN 1849-2)
<b>Mass per area</b>	1.60 kg/m <sup>2</sup> (- 0.08 kg/m <sup>2</sup> / + 0.16 kg/m <sup>2</sup> )	(EN 1849-2)

## TECHNICAL INFORMATION

<b>Tensile strength</b>	Longitudinal (MD)	27 N/mm <sup>2</sup> ± 3 N/mm <sup>2</sup>	(EN ISO 527-3)
	Transversal (CMD)	26 N/mm <sup>2</sup> ± 3 N/mm <sup>2</sup>	
	Longitudinal (MD)	27 N/mm <sup>2</sup> ± 3 N/mm <sup>2</sup>	(EN 12311-2)
	Transversal (CMD)	26 N/mm <sup>2</sup> ± 3 N/mm <sup>2</sup>	
<b>Tensile strain at break</b>	Longitudinal (MD)	> 700 %	(EN ISO 527-3)
	Transversal (CMD)	> 700 %	
<b>Resistance to static puncture</b>	3.3 kN ± 0.3 kN		(EN ISO 12236)
<b>Resistance to impact</b>	Method A, 500 g falling weight	Watertight at 800 mm drop height	(EN 12691)
<b>Resistance to static loading</b>	No perforation at 20 kg for 24 h		(EN 12730)
<b>Watertightness</b>	Tested 24 hours at 60 kPa	pass	(EN 1928)
<b>Foldability at low temperature</b>	No cracks at -40 °C		(EN 495-5)
<b>Resistance to tear</b>	Longitudinal (MD)	960 N ± 96 N	(EN 12310-1)
	Transversal (CMD)	920 N ± 92 N	
<b>Joint shear resistance</b>	> 400 N / 50 mm		(EN 12317-2)
<b>Durability of watertightness against ageing</b>	Aged 12 weeks, tested 24 hours at 60 kPa	pass	(EN 1296)
<b>Durability of watertightness against chemicals</b>	Calcium hydroxide, aged 28 days at +23 °C, tested 24 hours at 60 kPa	pass	(EN 1847)
<b>Microbiological resistance</b>	Change in tensile strength, aged 16 weeks	< 15 % (MD/CMD)	(EN 12225)
	Change in elongation, aged 16 weeks	< 15 % (MD/CMD)	
<b>Reaction to fire</b>	Class E		(EN 13501-1)

# SYSTEM INFORMATION

## System structure

### Ancillary Products:

- Sikaplan® WT 4220-15 C
- Sikaplan® WT 4220-15 C Felt
- Sikaplan® WT External/Internal Corner preformed 90° PE
- Sikaplan® W Flat Profile Stainless Steel
- Sikaplan® WT Fixation Plate PE
- Sarnafil® T Prep
- Sarnafil® T Clean

## 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.

## 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)

## APPLICATION INSTRUCTIONS

### 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.

### SUBSTRATE QUALITY

For information on substrate quality / pre-treatment, refer to the following Sika® method statement:

- Sikaplan® WT 4220 sheet membrane (PE) system for lining potable water reservoirs

## APPLICATION METHOD / TOOLS

For information on application, refer to the following Sika® method statement:

- Sikaplan® WT 4220 sheet membrane (PE) system for lining potable water reservoirs

### IMPORTANT

#### Application by trained personnel

The application of this Product must only be carried out by Sika® trained and/or approved contractors, experienced in this type of application.

### IMPORTANT

#### Ventilation in confined spaces

Always ensure good ventilation when applying the Product in a confined space.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

## LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given to buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

SikaplanWT4220-18H-en-DK-(08-2021)-4-1.pdf

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August 2021, Version 04.01

020720201000000027