

# PRODUCT DATA SHEET

## Sikalastic® WR

ECO-FRIENDLY LIQUID APPLIED WATERPROOFING SOLUTION BASED ON SIKA CO-ELASTIC TECHNOLOGY (CET)



### DESCRIPTION

Sikalastic® WR is a cold-applied, highly elastic, one-component waterborne liquid applied waterproofing membrane. Suitable for the use in hot and tropical climatic conditions.

### USES

- For the waterproofing of bathrooms, shower rooms, kitchens and plumbing rooms beneath hard protection, for example ceramic tiles
- For waterproofing solutions in both new construction and refurbishment projects
- For cost efficient waterproofing solution

### CHARACTERISTICS / ADVANTAGES

- Highly elastic and crack-bridging
- One-component - ready to use
- Excellent adhesion on porous and non-porous substrates
- Seamless, fully bonded waterproofing membrane
- Water vapour permeable

### APPROVALS / CERTIFICATES

- Conforms to the requirement of LEED EQ credit 4.2: Low - Emitting Materials. Paints and Coatings: VOC < 100 gm/l
- Certified by Thomas Bell-Wright International Consultants according to ASTM E84-16 : Standard Test Method for Surface Burning Characteristic of Building Materials. Certificate number: TBW0300202

### PRODUCT INFORMATION

<b>Composition</b>	Polyurethane modified Acrylic Dispersion	
<b>Packaging</b>	20 kg plastic pails	
<b>Colour</b>	White, liquid form Grey on request	
<b>Shelf life</b>	12 months minimum from date of production if stored properly in original, unopened and undamaged sealed packaging.	
<b>Storage conditions</b>	Store in dry conditions in original packaging at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost.	
<b>Density</b>	~1.31 kg/l	(EN ISO 2811-1)
<b>Solid content by weight</b>	~65 %	
<b>Solid content by volume</b>	~48 %	

### TECHNICAL INFORMATION

<b>Tensile Strength</b>	Free film: ~1.5 N/mm <sup>2</sup>	(DIN 53504)
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<b>Elongation at Break</b>	~330 %	(BS EN ISO 527)
<b>Permeability to Water Vapour</b>	Nil penetration	(BS EN 12390 Part 8)
<b>Service Temperature</b>	-10 °C min. / +80 °C max. (with reinforcement) -5 °C min. / +80 °C max. (without reinforcement)	
<b>Reaction to Fire</b>	Class A	(ASTM E-84)

## SYSTEMS

### System Structure

#### **Wet Room Waterproofing**

For cost efficient waterproofing solutions in new construction and refurbishment projects.

Build-up	Sikalastic® WR (applied in minimum of 2 coats)
Substrates	Concrete, Cement mortars and screeds
Primer	Please refer to Substrate Pre-treatment
Dry Film Thickness (DFT)	min. 0.5 mm
Total consumption	min. 1.4 kg/m <sup>2</sup>

These figures are theoretical and do not include for any additional materials required due to surface porosity, surface profile, variations in level and wastage. It is recommended to apply a mortar fillet or Sika® Flexitape at all floor wall joints.

## APPLICATION INFORMATION

<b>Ambient Air Temperature</b>	+8 °C min. / +40 °C max.
<b>Relative Air Humidity</b>	80 % max.
<b>Dew Point</b>	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point.
<b>Substrate Temperature</b>	+8 °C min. / +40 °C max.
<b>Substrate Moisture Content</b>	< 6 % moisture content. No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.

## Substrate Pre-Treatment

Substrate	Primer	Consumption (kg /m <sup>2</sup> )
Cementitious substrates	Sikalastic® WR diluted with 10 % water.	~0.3
Brick and Stone	Sikalastic® WR diluted with 10 % water.	~0.3
Bituminous felt	Sikalastic® Metal Primer or Sikalastic® WR diluted with 10 % water. Please consult with our Technical Department prior to use.	~0.2 - 0.3
Metals (Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel)	Sikalastic® Metal Primer or Sikalastic® WR diluted with 10 % water. Please consult with our Technical Department prior to use.	~0.2 - 0.3
Paints	Sikalastic® WR diluted with 10 % water subject to adhesion and compatibility tests.	~0.3

These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc

## Waiting Time / Overcoating

Before applying Sikalastic® WR on primer Sikalastic® WR diluted with 10% water.

Substrate temperature	Relative humidity	Minimum	Maximum <sup>1)</sup>
+10 °C	50 %	~4 h	1 month
+20 °C	50 %	~2 h	1 month
+30 °C	50 %	~1 h	1 month

Before applying Sikalastic® WR on Sikalastic® WR allow intermediate coats to fully cure.

Substrate temperature	Relative humidity	Minimum	Maximum <sup>1)</sup>
+10 °C	50 %	~8 h	3 months
+20 °C	50 %	~6 h	3 months
+30 °C	50 %	~4 h	3 months

<sup>1)</sup> Assuming that all dirt has been removed and contamination is avoided.

**Note:** Times are approximate and will be affected by coating thickness and changing ambient conditions particularly temperature and relative humidity. Low temperature and high humidity retard curing, while high temperatures and low humidity accelerate curing progression. The above times are based on a coating thickness of 0.35 kg/m<sup>2</sup>.

## Applied Product Ready for Use

Substrate Temperature	Relative humidity	Touch dry	Rain, water and condensation resistant	Full cure
+10 °C	50 %	~4 h	~12 h	~6 d
+20 °C	50 %	~2 h	~8 h	~4 d
+30 °C	50 %	~1 h	~4 h	~2 d

**Note:** Times are approximate and will be affected by coating thickness and changing ambient conditions particularly temperature and relative humidity. Low temperature and high humidity retard curing, while high temperatures and low humidity accelerate curing progression. The above times are based on a coating thickness of 0.35 kg/m<sup>2</sup>.

## APPLICATION INSTRUCTIONS

Prior to the application of Sikalastic® WR the priming coat must have cured tack-free. Protect adjacent

areas from splashes, over painting, damage etc. with an adhesive tape or plastic.

Sikalastic® WR is applied in minimum 2 coats. Prior to the application of each coat the indicated waiting times must be followed.

Sikalastic® Flexitape Heavy or Sika® Reemat Premium is applied at areas having high movements, irregular substrate or to bridge cracks, joints and seams on the substrate.

Please note, always begin with detailing works prior to waterproofing the horizontal surface.

#### **Tools:**

High Pressure Jet Washer (minimum 150 bar).

Squeegee: Useful when removing excess water.

Drill and paddle: Sikalastic® WR should be mixed for one minute using a slow speed (300-500 rpm) drill and basket type paint mixer.

Solvent resistant short-piled roller: Used in the application of Sikalastic® WR to ensure a consistent

Thick hair brush: For application of Sikalastic® WR to all details and penetrations.

Airless spray equipment: Used only for the coating systems / top coats of reinforced systems. Two spray applied layers is the minimum requirement. The pump should have the following parameter:

- minimum pressure: 220 bar
- minimum output: 5.1 l/min
- minimum Ø nozzle: 0.83 mm (0.033 inch)

For example: Wagner Heavycat HC 940 E SSP Spraypack.

The coating must be covered with a hard protection. (ceramic tiles, stone slabs).

For bonding tiles or equivalent materials, use Sika-Ceram C2 type according to EN 12004 or an adhesive compatible with Sikalastic® WR. The application can take place after the second layer has fully cured.

**Note:** Please refer to the most recent issue of the specific Method Statement

#### **SUBSTRATE PREPARATION**

All substrates must be cleaned and prepared using high pressure water jet. Abrasive blast cleaning, scuffing equipment to or other suitable approved mechanical methods.

#### **Cementitious substrates:**

New concrete should be cured for at least 28 days and should have a pull-off strength > 1.5 N/mm<sup>2</sup>.

Loose friable material and weak concrete must be completely removed by mechanical means to achieve an open textured surface and all surface defects such as blowholes and voids must be fully exposed. Repairs to the substrate, filling of joints, blowholes/voids and surface leveling must be carried out using the appropriate Sika® products. Refer to Sika's Technical Department for further advice. High spots must be removed by for example grinding.

Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Installing the

Sikalastic® WR either when the concrete temperature is falling or stable can reduce outgassing.

Prime the substrate before applying the Sikalastic® WR systems.

#### **Brick and stone:**

Mortar joints must be sound and flush pointed.

Use localized reinforcement over connection joints and prime before applying Sikalastic® WR.

#### **Bituminous felt:**

Ensure that Bituminous felt is firmly adhered or mechanically fixed to the substrate.

Bituminous felt should not contain any badly degraded areas and be primed before applying Sikalastic® WR.

#### **Metals:**

Metals must be in a clean sound rust free condition.

Metals surfaces must be free of oil and greases.

Abrade exposed surfaces to reveal bright metal.

Use localized reinforcement over joints and fixings.

#### **Paints/Coatings:**

Ensure that the existing material is sound and firmly adhered.

Remove any oxidized layers and use localized reinforcement over joints.

#### **MIXING**

Prior to application, stir Sikalastic® WR thoroughly for 1 minute in order to achieve a homogeneous mixture. Over mixing must be avoided to minimise air entrainment.

#### **CLEANING OF EQUIPMENT**

Clean all tools and application equipment with water immediately after use.

Hardened / cured material can only be removed mechanically

#### **IMPORTANT CONSIDERATIONS**

Do not apply Sikalastic® WR on substrates that have rising moisture.

Always apply during falling ambient and substrate temperature. If applied during rising temperatures "pin holing" may occur from rising and expanding air.

When applying Sikalastic® WR in Wet Rooms it is recommended to install mortar arris's / fillets or Sika® FlexiTape at all upstands and skirtings. Drainage pipes and outlets must be sealed with Sikaflex® Construction+ prior to the waterproofing.

Sikalastic® WR may be flood tested when fully cured using 50 millimetre depth of water for a maximum period of 24 hours.

Ensure that each coat of Sikalastic® WR is totally dry and the surface is without pinholes before applying further coats.

It is recommended to carry out Adhesion and Compatibility tests with the Primer prior to application of following coats.

If aesthetics are important and normal drying times are to be achieved, do not apply Sikalastic® WR top

coats with consumption rates greater than 0.35 kg/m<sup>2</sup>. Sikalastic® WR should not be subject to permanent water immersion.

Whilst Sikalastic® WR is resistant to most commonly encountered atmospheric pollutants, proprietary cleaning solutions and environmental spoilage, the suitability of the product for use in applications with increased chemical resistance requirements should first be established in consultation with Sika's Technical Department.

## BASIS OF PRODUCT DATA

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

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## 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.

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ISO 9001: Sika UAE LLC,  
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ISO 14001: Sika UAE LLC,  
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All products are supplied  
under a management  
system certified to conform  
to the requirements of the  
quality, environmental and  
occupational health &  
safety standards ISO 9001,  
ISO 14001 and OHSAS  
18001.

### Product Data Sheet

Sikalastic® WR

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