

Sikalastic®-445

UV-resistant, Highly Elastic Polyurethane Waterproofing Membrane

Product Description	Sikalastic®-445 is a one part, solvent containing, highly elastic, moisture curing polyurethane for seal coats and coatings.	
Uses	<ul style="list-style-type: none">■ Waterproofing on flat roofs, balconies and terraces■ For detailing on roofs and general waterproofing in new construction and for refurbishment	
Characteristics / Advantages	<ul style="list-style-type: none">■ Highly elastic and crack-bridging■ UV-protection of Sikalastic-821 / -821 LV / -822■ Very good adhesion on many substrates■ UV resistant and resistant to yellowing■ Seamless waterproofing membrane■ Water vapour permeable	
Tests		
Approval / Standards	Conforms to the requirements of ETAG-005-6. Certificate: European Technical Approval No. ETA-05/0265	
Product Data		
Form		
Appearance / Colours	Coloured liquid. Almost unlimited choice of colour shades.	
Packaging	18 kg 6 kg containers.	
Storage		
Storage Conditions / Shelf Life	6 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.	
Technical Data		
Chemical Base	Polyurethane	
Density	~ 1.6 kg/l All Density values at +23°C	(DIN EN ISO 2811-1)
Solid Content	~ 77% by volume / ~ 88% by weight	
Mechanical / Physical Properties		
Elongation at Break	320% (28 days / +23°C)	(DIN 53504)
Abrasion Resistance	30 mg (CS 10/100/1000) (8 days / +23°C)	(DIN 53 109 (Taber Abrader Test))



System Information

System Structure

Concrete or rendering or other rigid substrates - seal coat.

System for light wear:

Layer thickness : 0.3 - 0.4 mm

Primer : 1 x **Sikalastic®-445**, diluted with 10 wt.-% Thinner C

Seal Coat : 1 x **Sikalastic®-445**

Concrete or rendering or other rigid substrates - seal coat.

Roofing-system, horizontal areas (according to ETAG 005):

Layer thickness : 1.6 - 1.8 mm

Primer : 1 x **Sikalastic®-445**, diluted with 10 wt.-% Thinner C

Coating : 2 x **Sikalastic®-445**

Concrete or rendering or other rigid substrates seal coat.

Roofing-system, machine applied:

Layer thickness : 1.5 - 1.8 mm

Primer : 1 x Sikafloor®-156, slightly broadcast with quartz sand, 0.3 - 0.8 mm

Coating : Sikalastic®-821, Sikalastic-821 LV

UV-protection : 1 x **Sikalastic®-445**

Detailing and roofing areas for connection to Sikaplan® PVC and TPO, Trocal® type S and Futura membranes. Concrete, cement rendering or other rigid substrates. Wood, old PVC / TPO, bituminous membranes for Roofing systems, horizontal areas, reinforced.

Layer thickness : 1.6 - 1.8 mm

Primer : Please refer to "Sikalastic- Primer Chart"

Coating : 1 x **Sikalastic®-445**

Fleece : 1 x Sikalastic-120 Fleece or Sikalastic-200 Fleece.

Coating : 1 x **Sikalastic®-445**

Primer Chart:

Primer List REFURBISHMENT

Substrate	Cleaner	Primer	Consumption
Sikaplan® type G, VG, VGWT exposed minimum 10 years	Sika® Cleaner-2000	No	
Trocal® type S exposed minimum 10 years	Sika® Cleaner-2000	No	
Metal substrates	Mechanical cleaning Sika® Cleaner-2000		
Bitumen (broadcast) exposed minimum 10 years	Mechanical cleaning	No	
Wooden substrates	Grinding	No	
Cementitious substrates	Grinding	No or Sikalastic® Primer-3 or Sikafloor® -156	0.1 - 0.2 kg/m ² 0.3 - 0.5 kg/m ²
Metals: Zinc coated metal, Aluminium, Copper, Stainless steel,	Mechanically cleaning	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²

Primer List NEW CONSTRUCTION

Substrate	Cleaner	Primer	Consumption
Sikaplan® type G, VG, VGWT	Sika® Cleaner-2000	Sikalastic® Primer-2	0.1 - 0.2 kg/m ²
Trocal® type S	Sika® Cleaner-2000	Sikalastic® Primer-2	0.1 - 0.2 kg/m ²
Trocal® Futura	Sika® Cleaner-2000	Sikalastic® Primer TPO	0.1 - 0.2 kg/m ²
Trocal®type SGK	Sika® Cleaner-2000	Sikalastic® Primer-2	0.1 - 0.2 kg/m ²
Bitumen (broadcast)	Mechanical cleaning	No	
PVC-laminated Metal Sheet	Sika® Cleaner-2000	Sikalastic® Primer-2	0.1 - 0.2 kg/m ²
Wood	Grinding	No	
Ply Wood	Grinding	No	
Zinc metal sheet	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Zinc coated metal sheet	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Aluminium sheet	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Aluminium sheet embossed	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Copper sheet	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Stainless steel	Sika® Cleaner-2000	Sikalastic® Primer-1	0.1 - 0.2 kg/m ²
Roof light upstand	Sika® Cleaner-2000	Sikalastic® Primer-2	0.1 - 0.2 kg/m ²

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	1x Sikalastic®-445 diluted with 10 wt.-% Sika Thinner C	0.4 - 0.5 kg/m ²
Coving / Upstands (> 4% slope)	1x Sikalastic®-445	1.0 - 1.2 kg/m ² + 1.5 - 2 wt.-% Extender T
Coating, horizontal areas	2 x Sikalastic®-445	1.6 - 1.9 kg/m ² / layer
Top coat / UV-Protection	1 x Sikalastic®-445	~ 0.8 kg/m ²
Roofing-system, machine applied	1x Sikafloor®-156 Loosely broadcast with quartz sand, 0.4 - 0.7 mm 1 x Sikalastic®-821 or 1 x Sikalastic®-821 LV 1 x Sikalastic®-445	0.3 - 0.5 kg/m ² 1.0 - 1.5 kg/m ² ~ 2.2 kg/m ² ~ 2.02 kg/m ² ~ 0.8 kg/m ²
Roofing-system, horizontal areas, reinforced	For Primers, please refer to "Sikalastic- Primer Chart" 1 x Sikalastic®-445 1 x Sikalastic®-120 Fleece or Sikalastic®-200 Fleece 1 x Sikalastic®-445	1.0 - 1.5 kg/m ² 0.12 - 0.20 kg/m ² ~ 0.8 kg/m ²

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

Substrate Quality

The substrate must be clean, dry and free of all contamination such as dirt, oil, grease, coatings etc. which hinder an adhesion.
The substrate must be sound and of sufficient strength.
If in doubt, apply a test area first.

Substrate Preparation

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
Old PVC / TPO or bituminous membranes have to be mechanically cleaned and where necessary treated with a primer (see Primer list).
New Sikaplan® PVC / Trocal® type S, Futura membranes, metal substrates, wood etc. have to be cleaned and treated with the appropriate Primer according to the Primer list.

Application Conditions / Limitations

Substrate Temperature +8°C min. / +40°C max.

Ambient Temperature +8°C min. / +40°C max.



Substrate Moisture Content	<p>< 4% pbw moisture content.</p> <p>Test method: Sika®-Tramex meter, or CM - measurement or Oven-dry-method.</p> <p>No rising moisture according to ASTM (Polyethylene-sheet).</p> <p>Porous substrates can be matt damp if Primer 3 is used.</p> <p>No water / moisture / condensation on the substrate.</p> <p>Check Dew point before application of Primer and Sikalastic®-445.</p>
Relative Air Humidity	35% min. (below +20°C: 45% min.) / 80% max.
Dew Point	<p>Beware of condensation!</p> <p>Ambient temperature during application must be at least +3°C above dew point.</p>
Application Instructions	
Mixing	<p>Prior to application, stir Sikalastic®-445 thoroughly for 3 minutes in order to achieve a homogeneous mixture.</p> <p>Over mixing must be avoided to minimise air entrainment.</p>
Mixing Tools	Sikalastic®-445 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
Application Method / Tools	<p><i>Primer:</i> Prime prepared surfaces with the appropriate primer by roller.</p> <p><i>By brush:</i> With thick haired brush.</p> <p><i>By roller:</i> With a solvent resistant, short-piled lamb skin roller.</p> <p><i>Detailing areas:</i> For detailing apply a sufficient quantity of Sikalastic®-445 by roller or brush to wet the fleece proper. Roll in the Sika Fleece ensuring that there are no bubbles or creases and apply the next layer of Sikalastic®-445 to achieve the required film thickness. Overlap the Sikalastic-120 Fleece or Sikalastic-200 Fleece at least 5 cm. At borders to other waterproofing membranes overlap 10 - 15 cm. In case of upstands ore covings please add 1.5 - 2 wt.-% Extender T to Sikalastic®-445.</p>
Cleaning of Tools	Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.
Potlife	<p>Sikalastic®-445 is designed for fast drying. Therefore the material will dry very fast (forming a film) at high temperatures combined with high air humidity.</p> <p>Therefore, material in opened containers should be applied immediately. In opened containers, the material will form a film within 1 - 2 hours.</p>

Waiting Time / OvercoatingBefore applying **Sikalastic®-445** on **Sikalastic®-445** allow:

Substrate temperature	Minimum	Maximum
+10°C	36 hours	After thorough cleaning ¹⁾ Sikalastic®-445 can be overworked with itself at any time
+20°C	24 hours	
+30°C	18 hours	
+40°C	16 hours	

Before applying **Sikalastic®-445** on Sikalastic®-821, Sikalastic®-821 LV allow:

Substrate temperature	Minimum	Maximum
+10°C	90 minutes	3 hours ²⁾
+20°C	60 minutes	2 hours ²⁾
+30°C	30 minutes	2 hours ²⁾
+40°C	20 minutes	1 hour ²⁾

Before applying **Sikalastic®-445** on Sikalastic®-822 allow:

Substrate temperature	Minimum	Maximum
+10°C	16 hours	24 hours ²⁾
+20°C	12 hours	18 hours ²⁾
+30°C	10 hours	14 hours ²⁾
+40°C	8 hours	10 hour ²⁾

Before applying **Sikalastic®-445** on Sikalastic®-450 allow:

Substrate temperature	Minimum	Maximum
+10°C	36 hours	After thorough cleaning ¹⁾ Sikalastic®-450 can be overworked with Sikalastic®-445 at any time
+20°C	24 hours	
+30°C	16 hours	

¹⁾ Assuming that all dirt has been removed and contamination is avoided.²⁾ If the max. waiting time is exceeded then Sikalastic-810® + 15wt.-% Thinner C must be applied as bonding bridge.

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

For using **Sikalastic®-445** in combination with Sikalastic®-Fleece, **Sikalastic®-445** must be applied wet in wet.For the Waiting Time / Overcoating before applying **Sikalastic®-445** on Sikalastic® Primer-1, Sikalastic® Primer-2 and Sikalastic® Primer TPO, please refer to the PDS of the mentioned primers.

Notes on Application / Limitations

Prior to overcoating with **Sikalastic®-445**, the priming coats must have cured tack-free.

Do not use for internal applications.

Do not apply **Sikalastic®-445** close to running air conditioning exhaust vents.

In order to cover joints, connections or overlaps of bituminous sheets, use strips of Sikalastic®-120 Fleece or Sikalastic®-200 Fleece to provide additional thickness. Please ask our technical service department for detailed recommendations.

Curing Details

Applied Product ready for use

Temperature	Rain resistant after	Ready for foot traffic (with care) ¹⁾	Full cure ¹⁾
+10°C	~ 18 hours	~ 36 hours	~ 7 days
+20°C	~ 7 hours	~ 24 hours	~ 4 days
+30°C	~ 5 hours	~ 18 hours	~ 3 days
+40°C	~ 4 hours	~ 16 hours	~ 3 days

¹⁾ Only for inspection or for application of the next layer, not for permanent traffic.

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet 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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