BUILDING TRUST

SYSTEM DATA SHEET

SikaRoof® PUR-18

ELASTIC UV-STABLE POLYURETHANE HYBRID, LIQUID APPLIED ROOF WATERPROOFING SYSTEM - ETAG 005

DESCRIPTION

SikaRoof® PUR-18 is a 2-part, cold-applied, polyurethane hybrid liquid applied membrane roof waterproofing system. The system is highly elastic and UV-stable which provides a durable waterproofing solution and conforms to the ETAG-005 guidelines.

USES

SikaRoof® PUR-18 may only be used by experienced professionals.

The product can be used for the following roof waterproofing applications:
- Flat and sloping fully exposed roof structures
- Failing roofs to extend the service life
- New construction and refurbishment projects
- Roofs with numerous details such as penetrations, drains, roof lights and complex geometry
- Cool and solar roofs when used in combination with Sikalastic®-701 (~ RAL 9016)
- Alternative option for small projects where application machinery is not practical

The product can be used on the following substrates:
- Aluminium
- Brass
- Bitumen sheet membranes
- Bituminous coatings
- Bricks
- Cementitious
- Concrete slabs
- Copper
- Existing liquid applied membranes
- Galvanised steel
- Lead
- Ferrous metals
- Stainless steel
- Stone
- Unglazed ceramic tiles

Please note:
The product is not suitable for permanent water immersion.

CHARACTERISTICS / ADVANTAGES

- Conforms to the ETAG-005 guidelines
- Top coat provides resistance to permanent UV exposure
- Reflective roof coating to enhance energy efficiency
- Top coat has low dirt pick up
- Good crack-bridging properties at low temperatures
- Resistant to ponding water
- Thickness: 2.3 – 2.6 mm
- Easily re-coated when needed - no removal of previous coats required
- Seamless finish
- Cold applied - requires no heat or flame
- Vapour permeable
- Resistant to many common environmental influences
- Available in many colours
- Top coat in-pail tinting available

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to European Technical Assessment ETA-20/0248, based on ETAG 005 Part 1 and Part 6 — Liquid applied roof waterproofing kits. Part 1: General. Part 6: Specific stipulations for Kits based on Polyurethane
- Water-Vapor Diffusion Rate, Sikalastic-702, Request AR-2019-0072en, Sika
- Capillary absorbtion, Sikalastic-702, Request AR-2019-0072en, Sika
- Capillary absorbtion of water, Sikalastic-702, Request AR-2019-0072en, Sika
- CO2 - Diffusion Flow, Sikalastic-702, Request AR-2019-0072en, Sika

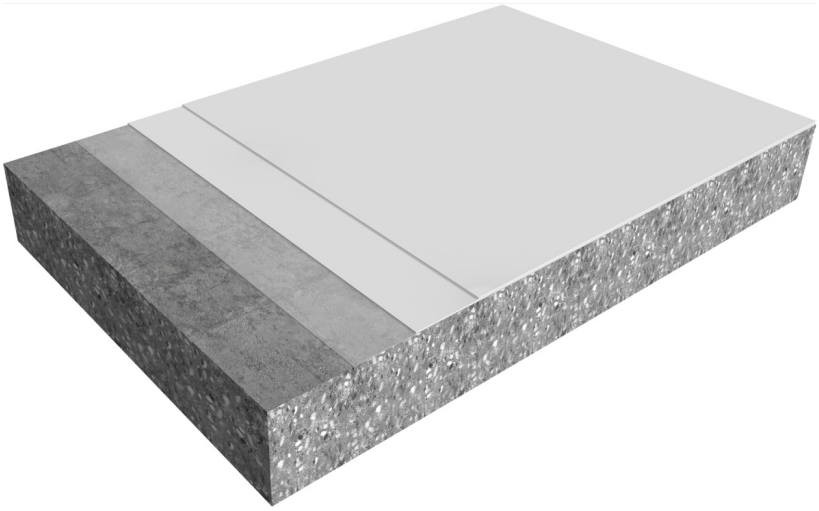
- Water Vapour Transmission (1.5 mm system), Sikalastic®-701, Sikalastic®-702, Award, Report No.

R2273
- Chemical Resistance, Sikalastic®-701, Assessment, Sika
- Abrasion resistance AR0.5(Special), Sikalastic®-701, Sikalastic®-702, FACE, Test report No. FC/18/8048
- Final Solar Reflectance per ASTM C1549, Final Thermal Emittance per ASTM C1371, Final Solar Reflective Index for the top coat Sikalastic®-701, MTL, Report No. 2018-356

SYSTEM INFORMATION

System Structure

SikaRoof® PUR-18



Layer	Product	Consumption
1. Primer	Depends on type of substrate	Refer to individual Product Data Sheet
2. Base coat	Sikalastic®-702	~2.5 – 2.8 kg/m²
3. Top coat	Sikalastic®-701	~0.35 kg/m²

IMPORTANT
The system structure layers as described in table must not be changed.
Note: Sikalastic®-702 is not resistant to long term UV-light exposure and must be overcoated with Sikalastic®-701 within 4 weeks.
Note: On vertical or inclined surfaces, add up to 2 % of Extender T (by weight) into Sikalastic®-702 to increase sag resistance. Alternatively use Sikalastic®-702 THX.
Note: These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Composition

Elastomeric aromatic and aliphatic PU/PUA hybrids

Colour

Final colour	White

The product can be coloured locally with Sika® In Pail Tinting (IPT) machines. For more information, consult the local Sika customer service.

Dry film thickness

~2.3 – 2.6 mm	(ETA-005 for all flat roofs)

System Performance

W2 / M and S / P3 / S1-S4 / TL3 - TH3	(ETA-005 for all flat roofs)

TECHNICAL INFORMATION

Tensile Strength	~10.0 N/mm²		(DIN EN ISO 527-3)
Elongation at Break	~900 %		(DIN EN ISO 527-3)
External Fire Performance	B_{roof} T1 / B_{roof} T4		(DD ENV 1187)
Reaction to Fire	Euroclass E		(EN 13501-1)
Solar Reflectance	Initial Solar Reflectance	0.88	(ASTM C1549)
Thermal Emittance	Initial Thermal Emittance	0.86	(ASTM C1371)
Solar Reflectance Index	Initial SRI (Convective Coefficient, Medium Wind)	112	(ASTM C1549)

APPLICATION INFORMATION

Ambient Air Temperature	+5 °C min. / +40 °C max.
Relative Air Humidity	25 % min. / 85 % max.
Dew Point	Beware of condensation. The substrate and uncured applied layers must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the membrane finish.
Substrate Temperature	+10 °C min. / +60 °C max.
Substrate Moisture Content	The following test methods can be used to determine the substrate moisture content: ▪ Sika®-Tramex meter ▪ CM-measurement ▪ Oven-dry-method
Substrate Pre-Treatment	Note: Confirm adequate surface preparation and Product adhesion, by carrying out a small trial before full application together with adhesion tests as required. Note: For the primer consumption rates and waiting time / overcoating, refer to the appropriate Product Data Sheet. Note: Other substrates must be tested for their compatibility. If in doubt, apply a test area first. **Substrate primers**

Substrate	Primer
Cementitious	Sika® Concrete Primer / Sika® Concrete Primer LO/ Sikafloor®-161
Brick, Stone	Sika® Concrete Primer / Sika® Concrete Primer LO/ Sikafloor®-161
Concrete slabs, Unglazed ceramic tiles	Sika® Concrete Primer / Sika® Concrete Primer LO/ Sikafloor®-161
Bitumen sheet membrane, Bituminous coatings	Sikalastic® Metal Primer
Aluminium, Brass, Copper, Galvanised steel, Lead, Ferrous metals, Stainless steel	Sikalastic® Metal Primer
Existing SikaRoof® Liquid Applied Membrane	Sika® Reactivation Primer / Sika® Concrete Primer

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

- Sika Method Statement: SikaRoof® PUR systems
- Individual Product Data Sheets

IMPORTANT CONSIDERATIONS

Installation work must only be carried out by Sika trained and approved contractors, experienced in this type of application.

- If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish. For heating, use only electric powered warm air blower systems.

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.

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.

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