

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 absorption, Sikalastic-702, Request AR-2019-0072en, Sika
- Capillary absorption 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, 4ward, Report No. R2273

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- 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 | Contact Sika Technical Services for advice on primer selection | Refer to individual Product Data Sheet |
| | 2. Base coat | Sikalastic®-702 | ~2.5–2.8 kg/m ² |
| | 3. Top coat | Sikalastic®-701 | ~0.35 kg/m ² |
| <p>IMPORTANT</p> <p>The system structure layers as described in table must not be changed.</p> <p>Note:Sikalastic®-702 is not resistant to long term UV-light exposure and must be overcoated with Sikalastic®-701 within 4 weeks.</p> <p>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.</p> <p>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.</p> | | | |
| Composition | Elastomeric aromatic and aliphatic PU/PUA hybrids | | |
| Colour | Local organisation to list colours available | | |
| 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

Substrate

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 N |
| Aluminium, Brass, Copper, Galvanised steel, Lead, Ferrous metals, Stainless steel | Sikalastic® Metal Primer N |
| Existing SikaRoof® Liquid Applied Membrane | Sika® Reactivation Primer / Sika® Concrete Primer |

| | | |
|---------------------------|---|--------------------|
| Tensile Strength | ~10.0 N/mm ² | (DIN EN ISO 527-3) |
| Elongation at Break | ~900 % | (DIN EN ISO 527-3) |
| External Fire Performance | Broof T1 / Broof T4 | (DD ENV 1187) |
| Reaction to Fire | Euroclass E | (EN 13501-1) |
| Solar Reflectance | Initial Solar Reflectance | 0.88 |
| Thermal Emittance | Initial Thermal Emittance | 0.86 |
| 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 % r.h. min. / 85 % r.h. 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 system can be installed on substrates with a moisture content of ≤ 4 % part by weight. The substrate must be visibly dry with no standing water. The following test methods can be used to determine the substrate moisture content: <ul style="list-style-type: none"> ▪ Sika®-Tramex meter ▪ CM-measurement ▪ Oven-dry-method No rising moisture according to ASTM (Polyethylene-sheet). |

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

LIMITATIONS

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 Material Safety Data Sheet (MSDS) 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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