

PRODUCT DATA SHEET

Sikalastic®-612

COST EFFECTIVE, ONE-COMPONENT, LIQUID APPLIED POLYURETHANE WATERPROOFING MEMBRANE

DESCRIPTION

Sikalastic®-612 is a one-component, cold applied, moisture-triggered polyurethane waterproofing membrane. It cures to form a seamless and durable waterproofing solution for exposed roof areas and structures, as well as below tiles on balconies and terraces.

USES

- For roof waterproofing solutions in both new construction and refurbishment projects
- For roofs displaying complex detail areas, even when accessibility is limited
- For cost efficient life cycle extension of failing roofs
- For waterproofing underneath tiles bonded with adhesives on balconies and terraces

CHARACTERISTICS / ADVANTAGES

- One-component - no mixing, easy and ready to use
- Cold applied - requires no heat or flame
- Seamless membrane
- Can be reinforced where required
- Easily recoated when needed - no stripping required
- Economic – provides a cost efficient life cycle extension of failing roofs
- Vapour permeable - allows substrate to breathe
- Elastic - retains flexibility even at low temperatures
- Good adhesion to most substrates – see table
- Fast curing - free from rain damage almost immediately on application

APPROVALS / STANDARDS

- Liquid applied roof waterproofing kit according to ETAG 005, ETA-12/01278 issued by technical assessment body British Board of Agrément, Declaration of Performance 80192223, provided with the CE marking
- Liquid-applied water impermeable product for external installations beneath ceramic tiling according to DIN EN 14891:2012-07, Declaration of Performance 28643599, assessed by notified laboratory 0761, and provided with the CE marking.
- External fire performance according to ENV 1187: Broof (t1)
- Reaction to fire according to EN13501-1 : Euroclass E

PRODUCT INFORMATION

Chemical Base	One-component moisture-triggered aromatic polyurethane
Packaging	5 L (~7.1 kg) and 15 L (~21.3 kg) metal pails
Colour	White (RAL 9010), grey (RAL 7032), terracotta, other colours available upon request
Shelf Life	9 months from date of production

Storage Conditions

The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between 0 °C and +25 °C.

Higher storage temperatures may reduce shelf life of product.

Reference shall also be made to the storage recommendations within the safety data sheet.

Density	~1.42 kg/l (23 °C)	(EN ISO 2811-1)
Solid content by weight	~80 % (+23 °C / 50 % r.h.)	
Solid content by volume	~68 % (+23 °C / 50 % r.h.)	

TECHNICAL INFORMATION

Tensile Strength	Unreinforced	Reinforced	(EN ISO 527-3)
	~4.5 N/mm ²	~8 N/mm ²	
Elongation at Break	Unreinforced	Reinforced	(EN ISO 527-3)
	~180 %	~50 %	
Resistance to Root Penetration	According to CEN/TS 14416, Determination of the Root Resistance of roofing membranes, Report No. XBOE 02182 by Lanxess Deutschland GmbH.		
Service Temperature	-20 °C min. / +80 °C max.		

SYSTEM INFORMATION

System Structure

Roof Coating*

Sikalastic®-612 is applied in 1 or 2 coats

Total consumption $\geq 0.7 - 2.0 \text{ l/m}^2 (\geq 1.0 - 2.8 \text{ kg/m}^2)$

Dry film thickness $\geq 0.7 - 1.4 \text{ mm}$

*For partial reinforcement Sikalastic® Fleece-120 or Sikalastic® Flexitape Heavy is applied at areas with high movement, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details. On bitumen felt a fully reinforced roof waterproofing system has to be applied. For primer, please refer to the Substrate Pre-Treatment table below.

Reinforced Roof Waterproofing

Sikalastic®-612 is applied in one coat reinforced with Sikalastic® Fleece-120 and sealed with a further coat of Sikalastic®-612

Layer	Product	Consumption
1. Primer	please refer to substrate pre-treatment	please refer to PDS of the Primer
2. Base coat	Sikalastic®-612	$\geq 1.0 \text{ l/m}^2$ ($\geq 1.4 \text{ kg/m}^2$)
3. Reinforcement	Sikalastic® Fleece-120	-
4. Top coat	Sikalastic®-612	$\geq 1.0 \text{ l/m}^2$ ($\geq 1.4 \text{ kg/m}^2$)

Waterproofing below tiles bonded with tile adhesive*

Sikalastic®-612 is applied on concrete or screed in two coats, followed with one more coat of Sikalastic®-612 broadcasted with quartz sand.

Layer	Product	Consumption
1. Primer	Sika® Concrete Primer or Sika® BondingPrimer	please refer to PDS of the Primer
2. Base coat	Sikalastic®-612	$\geq 1.0 \text{ l/m}^2$ ($\geq 1.4 \text{ kg/m}^2$)
4. Top coat	Sikalastic®-612	$\geq 1.0 \text{ l/m}^2$ ($\geq 1.4 \text{ kg/m}^2$)
5. Bonding bridge	Sikalastic®-612 broadcasted with 2 kg /m ² quartz sand (ø 0.4 - 0.7 mm)**	$\geq 0.2 \text{ l/m}^2$ ($\geq 0.2 \text{ kg/m}^2$)
6. Tile adhesive	SikaCeram®-205 Xtra Large	please refer to PDS of the tile adhesive

*For partial reinforcement Sikalastic® Fleece-120 or Sikalastic® Flexitape Heavy is applied at areas with high movement, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.

**Excessive sand has to be removed after the liquid applied membrane has been cured.

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

APPLICATION INFORMATION

Ambient Air Temperature +5 °C min. / +40 °C max.

Relative Air Humidity 5 % r.h. min. / 85 % r.h. max.

Substrate Temperature +5 °C min. / +60 °C max.
Minimum 3 °C above dew point

Substrate Moisture Content $\leq 4 \%$ pbw moisture content.
Test method: Sika®-Tramex meter
No rising moisture according to ASTM (Polyethylene-sheet).

Substrate Pre-Treatment

Substrate	Primer
Cementitious substrates	Sika® Concrete Primer Sika® Bonding Primer
Brick and Stone	Sika® Concrete Primer Sika® Bonding Primer
Ceramic tiles (unglazed), and concrete slaps	Sika® Concrete Primer Sika® Bonding Primer
Bituminous felt & coating	Sikalastic® Metal Primer
Metals	Sikalastic®-Metal Primer
Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel	
Wooden substrates	Timber based roof decks require a complete layer of Sikalastic® Carrier. For small exposed timber sections use Sika® Concrete Primer or Sika Bonding Primer.
Paints	Subject to adhesion and compatibility tests
Existing SikaRoof® MTC System	Sika® Reactivation Primer

For the consumption rates and waiting time / overcoating please refer to the PDS of the appropriate cleaner and primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

Pot Life

Sikalastic®-612 is designed for fast curing. High temperatures combined with high air humidity will accelerate the curing process. Thus, material in opened containers should be applied immediately. In opened containers, the material will form a film after 1 hour approx. (+20 °C / 50 % r.h.)

Waiting Time / Overcoating

Ambient Conditions	Minimum waiting time*
+5 °C / 50 % r.h.	18 hours
+10 °C / 50 % r.h.	12 hours
+20 °C / 50 % r.h.	6 hours
+30 °C / 50 % r.h.	4 hours

*After four days the surface must be cleaned and primed with Sika® Reactivation Primer before continuing.

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

Applied Product Ready for Use

Ambient Conditions	Rain resistant*	Touch dry	Full cure
+5 °C / 50 % r.h.	10 minutes	8 hours	18 hours
+10 °C / 50 % r.h.	10 minutes	6 hours	10 hours
+20 °C / 50 % r.h.	10 minutes	4 hours	7 hours
+30 °C / 50 % r.h.	10 minutes	2 hours	5 hours

*Be aware that impact of heavy rain or rain showers can physically damage the still liquid membrane.

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

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The surface must be sound, of sufficient strength, clean, dry and free of dirt, oil, grease and other contamination. Depending on the material the substrate must be primed or mechanically cleaned. Grinding may be necessary to level the surface. Suitable substrates are such as: concrete, bituminous felts and coatings, metal, brickwork, asbestos cement, ceramic tiles, wooden substrates.

For detailed information regarding substrate preparation and primer chart please refer to Method Statement No. 850 915 08.

MIXING

Mixing is not required, however if the product is settled or separated on opening, stir Sikalastic®-612 gently but thoroughly in order to achieve a uniform colour. Stirring gently will minimise air entrainment.

APPLICATION

Prior the application of Sikalastic®-612 the priming coat if used must have cured tack-free. For the Waiting Time / Overcoating please refer to the PDS of the appropriate primer. Damageable areas (handrails etc.) have to be protected with tape or plastic wrapping.

Roof Coatings:

Sikalastic®-612 is applied in two coats. Prior to the application of a 2nd coat the indicated waiting time in the table Waiting Time / Overcoating shall be allowed. Roof coatings may need partial reinforcement over areas of stress or predictable movement e.g. joints, overlaps, detailing etc. Use Strips or sections of Sikalastic® Fleece-120 for reasonably sound surfaces – asbestos cement etc. For joints with moderate movement e.g. Metal Sheeting use Sika® Flexitape Heavy incorporating bond-break

Reinforced Roof Waterproofing:

Sikalastic®-612 is applied in combination with Sikalastic® Fleece 120. Over coating of bitumen felt has to be full reinforced.

1. Apply first coat of approximately 1.3 l/m² of Sikalastic®-612. Work only so far in advance that the material stays liquid.
2. Roll in the Sikalastic® Fleece-120 and ensure that there are no bubbles or creases. Overlapping of the fleece a minimum 5 cm and ensure overlaps are sufficiently wet to bond.
3. The roller may require only a little extra material to keep wetted but no further significant material needs to be added at this stage.
4. After the coat is dry enough to walk on, seal the roof area with second coat of Sikalastic®-612 at a minimum 0.7 l/m² per coat.

Please note, always begin with details prior starting with waterproofing the horizontal surface. For details follow step 1-4.

Waterproofing below tiles:

For waterproofing below tiles, follow the instruction for roof coatings. After the last coat of the waterproofing system has been cured, apply another coat of Sikalastic®-612 broadcasted with quartz sand. (Ø 0.4 - 0.7 mm) as bonding bridge. Remove excessive sand after the liquid applied membrane has cured. For application of the tile adhesive, please refer to the product data sheet of the tile adhesive.

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.

LIMITATIONS

- Do not apply Sikalastic®-612 on substrates with rising moisture.
- Sikalastic®-612 is not suitable for permanent water immersion.
- On substrates likely to exhibit outgassing, apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- Do not dilute Sikalastic®-612 with any solvent.
- Do not use Sikalastic®-612 for indoor applications.
- Do not apply close to the air intake vent of a running air conditioning unit.
- Do not apply Sikalastic®-612 directly on Sikalastic® Insulation boards. Instead use Sikalastic® Carrier between Sikalastic® Insulation board and Sikalastic®-612.
- Volatile bituminous materials may stain and/or soften below the coating.
- Areas with high movement, irregular substrates, or timber based roof decks require a complete layer of Sikalastic® Carrier.
- Sikalastic®-612 may exhibit slight chalking at the surface – do not use run off water for live fish tanks, etc.
- Low melting point bituminous materials may need priming – using a darker shade also helps hide any staining from the volatiles.

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.

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.

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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