Liquid Plastics

PRODUCT DATA SHEET

Sikalastic®-618

ONE-COMPONENT, LIQUID APPLIED POLYURETHANE WATERPROOFING MEMBRANE

PRODUCT DESCRIPTION

Sikalastic®-618 is a one-component, cold applied, moisture-triggered polyurethane membrane. It cures to form a seamless and durable waterproofing solution for exposed roof areas and structures.

USES

Sikalastic®-618 may only be used by experienced professionals.

- 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

CHARACTERISTICS / ADVANTAGES

- Single component - No mixing, easy and ready to use
- Cold applied - requires no heat or flame
- Seamless membrane
- Compatible with Sika® Reemat Premium - easy to detail
- 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 13/0456 issued by Technical Assessment Body British Board of Agrément (BBA), Declaration of Performance 18636122 and provided with the CE marking.
- External fire performance according to ENV 1187:
- B_{Roof} (t1) / Broof (t4) on non-combustible substrates
- B_{Roof} (t1) / Broof (t2) over built up roofing system
- British Standard 476 part 3 Ext F.AA rating non-combustible substrates
- Reaction to fire according to EN13501: Euroclass E

PRODUCT INFORMATION

Chemical Base	One-component, moisture-triggered aromatic polyurethane
Packaging	15 l (~20.7 kg) & 5 l metal pail
Colour	Storm Grey (RAL 7011), Cloud Grey (RAL 7045), Green Grey (RAL 7009) & White (RAL 9010),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 >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	~1.38 kg/l (23 °C) (EN ISO 2811-1)
Solid content by weight	~79 % (+23 °C / 50 % r.h.)
Solid content by volume	~67 % (+23 °C / 50 % r.h.)

TECHNICAL INFORMATION

Tensile Strength	**Not Reinforced**	**Reinforced**	(EN ISO 527-3)
	~ 4.6 N/mm²	~ 18 N/mm²	
Elongation at Break	**Not Reinforced**	**Reinforced**	(EN ISO 527-3)
	~150 %	~20 %	
External Fire Performance	On non-combustible substrates	B_{Roof} (t1) / B_{Roof} (t4)	(ENV 1187)
	Over built up roofing system	B_{Roof} (t1) / B_{roof} (t2)	
Reaction to Fire	Euroclass E		(EN 13501)
	Ext F.AA rating Non Combustible substrates		(BS 476-3)
Service Temperature	–20 °C min./ +90 °C max.		

SYSTEM INFORMATION

System Structure

Roof Coating*
Reinforced Roof Waterproofing
Sikalastic®-618 is applied in one coat reinforced with Sika® Reemat Premium and sealed with a further coat of Sikalastic®-618

Layer	Product	Consumption
1. Primer	please refer to substrate pretreatment	please refer to PDS of the Primer
2. Base coat	Sikalastic®-618	≥ 1.0 l/m² (≥ 1.42 kg/m²)
3. Reinforcement	Sika® Reemat Premium	-
4. Top coat	Sikalastic®-618	≥ 0.75 l/m² (≥ 1.06 kg/m²)

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. ≥ 3 °C above dew point
Substrate Moisture Content	≤ 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 or Sika® Bonding Primer
Brick and Stone	Not required
Ceramic tiles (unglazed), and concrete slabs	Sika® Concrete Primer or Sika® Bonding Primer
Asphalt	Not required, subject to surface assessment tests
Bituminous felt	Not required, only fully reinforced systems
Single Ply	Adhesion to single ply may vary according to type, age etc. Adhesion test required
Bituminous Coating	Not required
Metals Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel	Sikalastic® Metal Primer or Sika® Primer 204n
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 compatiblity tests
Existing Sika Liquid Plastics System	Sika® Reactivation Primer

For the consumption rates and waiting time / overcoating you should 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®-618 is designed for fast drying. High temperatures combined with high air humidity will increase 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.	8 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	10 hours	19 hours
+10 °C / 50 % r.h.	10 minutes	6 hours	10 hours
+20 °C / 50 % r.h.	10 minutes	4.5 hours	6 hours
+30 °C / 50 % r.h.	10 minutes	2 hours	4 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 09.

MIXING

Mixing is not required, however if the product is settled or separated on opening, stir Sikalastic®-618 gently but thoroughly in order to achieve a uniform colour. Stirring gently will minimise air entrainment.

APPLICATION

Prior the application of Sikalastic®-618 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.
Reinforced Roof Waterproofing:
Sikalastic®-618 is applied in combination with Sika Reemat Premium.

1. Apply first coat of approximately 1 l/m² of Sikalastic®-618. Work only so far in advance that the material stays liquid.
2. Roll in the Sikalastic® Reemat Premium. Overlap it a minimum 5 cm and ensure overlaps are sufficiently wet to bond both layers.
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®-618 at a minimum 0.75 l/m² per coat.

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

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®-618 on substrates with rising moisture.
- Sikalastic®-618 is not suitable for permanent water immersion.
- On substrates likely to exhibit out-gassing, apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- Do not dilute Sikalastic®-618 with any solvent.
- Do not use Sikalastic®-618 for indoor applications.
- Do not apply close to the air intake vent of a running air conditioning unit.
- Do not apply Sikalastic®-618 directly on Sikalastic® Insulation boards. Instead use Sikalastic® Carrier between Sikalastic® Insulation board and Sikalastic®-618.
- 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.
- Do not apply cementitious products (e.g. tile mortar) directly onto Sikalastic®-618.
- Sikalastic®-618 may exhibit slight chalking at the surface – do not use run off water for live fish tanks, etc.
- Volatile bituminous materials may stain and or soften below the coating.
- Low melting point bituminous materials may need priming – using a darker shade also helps hide any staining from the volatiles.

VALUE BASE

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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