Sika-Trocal®

PRODUCT DATA SHEET

Sikalastic®-621 TC

Highly durable, UV-stable, versatile and easily applied liquid polyurethane for use with the Sika-Trocal® Liquid Detailing System.

PRODUCT DESCRIPTION

Sikalastic®-621 TC is a cold-applied, one-component, seamless, highly elastic and UV-stable moisture-triggered polyurethane Top Coat (TC) designed to provide easy application and a durable solution as part of the SikaRoof® MTC systems, as well as for detailing on single ply membranes.

USES

Sikalastic®-621 TC may only be used by experienced professionals.

- Top Coat for SikaRoof® MTC 12,15, 18, 22 in both new construction and refurbishment projects
- For roofs displaying complex detail areas and geometry, even when accessibility is limited
- For cost efficient life cycle extension of failing roofs
- Highly reflective top coat Sikalastic®-621 TC – SR (traffic white RAL 9016) as part of the Sika SolaRoof™ MTC systems for excellent cool roof characteristics and bi-facial photovoltaic panels.
- For detailing on singly ply membranes

CHARACTERISTICS / ADVANTAGES

- Proven technology - over 25 year track record
- One component – no mixing, easy and ready to use
- UV resistant - Highly reflective (RAL9016) and resistant to yellowing
- Cold applied - requires no heat or flame
- Seamless roof waterproofing membrane
- Compatible with Sika® Reemat Premium - easy to detail
- Fast curing - free from resin damage almost immediately on application
- High elastic and crack-bridging - retains flexibility even at low temperatures
- High root resistance
- Easily re-coated when needed - no stripping required
- Good adhesion to most substrates- see primer chart
- Vapour permeable - allows substrate to breathe
- Strong resistance to common atmospheric chemicals

APPROVALS / STANDARDS

As part of SikaRoof® MTC Systems
Liquid applied roof waterproofing kit according to ETAG 005, ETA-09/0139 issued by technical assessment body British Board of Agrément (BBA), provided with the CE marking. Declaration of Performance:

- SikaRoof® MTC 12: 44125185
- SikaRoof® MTC 15: 27265077
- SikaRoof® MTC 18: 15813688
- SikaRoof® MTC 22: 75346978

- Root resistance approval according FLL (Institute of Horticulture)
- Reaction to fire according to EN 13501-1: Euroclass E
- External fire performance according to EN 13501-5:
- B_{Roof} (t1) - B_{Roof} (t4) (SikaRoof® MTC 15, non-combustible substrates)
- B_{Roof} (t1)- B_{Roof} (t4) (SikaRoof® MTC 18, build up roofs)
- B_{Roof} (t1) (SikaRoof® MTC 22, Build up roofs)

PRODUCT INFORMATION

Chemical Base	One-component, moisture-triggered aliphatic polyurethane
Packaging	5 l (7.2 kg approx.) metal pail 15 l (21.6 kg approx.) metal pail
Colour	Slate grey (RAL 7015), shale grey (RAL 8500), traffic white (RAL 9016), 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	~1.44 kg/l (23 °C) (EN ISO 2811-1)

TECHNICAL INFORMATION

Chemical Resistance	Salt spray	1000 hours continuous exposure	(ASTM B117)
	Prohesion testing	1000 hours cyclic exposure	(ASTM G85-94: Annex A5)
	Strong resistance to a wide range of reagents including paraffin, petrol, fuel oil, white spirit, acid rain, detergents and moderate solutions of acids and alkalis. Some low molecular weight alcohols can soften the material. Contact Sika technical service for specific information.		
Solar Reflectance Index	≥ 109* (ASTM 1980) *All values refer to the initial (properly cured, non-weathered) status of Sikalastic®-621 TC white (RAL 9016).		
Service Temperature	–30 °C min. / +80 °C max.		

SYSTEM INFORMATION

System Structure	Please refer to System Data Sheets of SikaRoof® MTC Systems
System Performance	Please refer to System Data Sheet of SikaRoof® MTC Systems.

APPLICATION INFORMATION

Ambient Air Temperature	+5 °C min. / +35 °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	Please refer to System Data Sheets of SikaRoof® MTC Systems
Pot Life	Sikalastic®-621 TC is designed for fast curing. 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 1–2 hours 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

*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 resistance	Touch dry	Full cure
+5 °C / 50 % r.h.	10 minutes*	8–12 hours	16–24 hours
+10 °C / 50 % r.h.	10 minutes*	4 hours	8–12 hours
+20 °C / 50 % r.h.	10 minutes*	3 hours	6–8 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 94 01.

MIXING

Mixing is not required, however if the product is settled or separated on opening, stir Sikalastic®-621 TC gently but thoroughly in order to achieve a uniform colour. Stirring gently will minimise air entrainment.

APPLICATION

Prior the application of Sikalastic®-621 TC 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. Please note, always begin with details prior to the installation of the horizontal surface.

1. Apply first coat of Sikalastic®-601 BC. Work only so far in advance that the material stays liquid*.
2. Roll in the Sikalastic® Reemat. Overlap the Reemat 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®-621 TC.
5. For SikaRoof MTC 22 apply a third coat of Sikalastic®-621 TC.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner S immediately after use. Hardened and/or cured material can only be removed mechanically.

FURTHER DOCUMENTS

For detailed information regarding substrate preparation, primer chart and application method please refer to Method Statement of SikaRoof® MTC Systems No. 850 94 01.

LIMITATIONS

- Do not apply Sikalastic®-621 TC on substrates with rising moisture.
- Sikalastic®-621 TC 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®-621 TC with any solvent.
- Do not use Sikalastic®-621 TC for indoor applications.
- Do not apply close to the air intake vent of a running air conditioning unit.
- Do not apply Sikalastic®-621 TC directly on Sikalastic® Insulation boards. Instead use Sikalastic® Carrier between Sikalastic® Insulation board and Sikalastic®-621 TC.
- 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®-621 TC.

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 exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU-Directive 2004/42/CE, the maximum allowed content of VOC (Product category IIA / i type sb) is 600/500 g/l (Limits 2007 / 2010) for the ready to use product.
The maximum content of Sikalastic®-621 TC is <500 g/l VOC for the ready to use product.

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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