



PRODUCT DATA SHEET

Sikalastic®-621 TC

SINGLE COMPONENT RESIN FOR SIKALASTIC® ROOFPRO ROOFING SYSTEMS

PRODUCT DESCRIPTION

Sikalastic®-621 TC is a cold-applied, highly elastic, aliphatic, single component, moisture-triggered polyurethane top coat resin designed for easy application as part of Sikalastic®-621 RoofPro roofing systems.

WHERE TO USE

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

- Sikalastic® RoofPro Direct, Recover, Built-Up, Inverted, and Vegetated systems for both new construction and refurbishment applications

CHARACTERISTICS / ADVANTAGES

- Proven technology – over 30 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 / CERTIFICATES

- As part of Sikalastic®-621 RoofPRO Roofing System:
- FM Approval Standard 4470 for Class 1 Roof Covers
 - ASTM E-108-00 Spread of Flame meets Class A at a slope of 1 in 12
 - Simulated wind uplift pull testing meets up to Class 1-990
 - Simulated hail damage testing meets rating of SH-Severe Hail
 - Miami-Dade County NOA for Roof Systems over Concrete and Steel Decks
 - USGBC LEED rating: Conforms to LEED SS Credit 7.2 for Heat Island Effect - Roof with SRI ≥ 78
 - Meets ASTM D7311-07: Standard Specification for Liquid-Applied, Single-Pack, Moisture-Triggered, Aliphatic Polyurethane Roofing Membrane.

PRODUCT INFORMATION

Composition / Manufacturing	One-component, moisture-triggered aliphatic polyurethane
Packaging	19 L (5 gal.) metal pail
Colour	White (RAL 9016), Pearl Grey, Steel Grey, Mushroom, Copper Green;

custom colours available with minimum order

Shelf Life	9 months from date of production
Storage Conditions	Store dry at temperatures ranging between 2 °C and 25 °C (35 °F and 77 °F). Condition product to temperatures between 10 °C and 25 °C (50 °F and 77 °F) before using and for ease of application.
Density	~1.44 kg/L (~12 lb/US gal.) at 23 °C (73 °F)
Solid content by volume	81% (ASTM D2697)
Volatile organic compound (VOC) content	183 g/L (ASTM D2369-81)

TECHNICAL INFORMATION

Tensile Strength	Please refer to Sikalastic®-621 System Data Sheet (ASTM D751)
Elongation at Break	Please refer to Sikalastic®-621 System Data Sheet (ASTM D751)
Tear Strength	Please refer to Sikalastic®-621 System Data Sheet (ASTM D751)
Resistance to Static Puncture	Please refer to Sikalastic®-621 System Data Sheet (ASTM D5602)
External Fire Performance	Class A (ASTM E108)
Chemical Resistance	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 Canada for specific information.
Solar Reflectance	0.87* (ASTM C1549) <small>*All values refer to the initial (properly cured, non-weathered) status of Sikalastic®-621 TC white (RAL 9016)</small>
Solar Reflectance Index	≥ 108* (ASTM 1980) <small>*All values refer to the initial (properly cured, non-weathered) status of Sikalastic®-621 TC white (RAL 9016).</small>
Service Temperature	-30 °C (-22 °F) min. / +80 °C (176 °F) max.

SYSTEMS

System Structure	Please refer to Sikalastic®-621 System Data Sheet
System Performance	Please refer to Sikalastic®-621 System Data Sheet

APPLICATION INFORMATION

Yield	Sika® Reemat 1.96 m ² /L - 0.51 mm (80 ft ² /US gal. - 20 mil) w.f.t. 1.3 m ² /L - 0.76 mm (53 ft ² /US gal. - 30 mil) w.f.t. 1.1 m ² /L - 0.89 mm (45 ft ² /US gal. - 35 mil) w.f.t. 0.86 m ² /L - 1.14 mm (35 ft ² /US gal. - 45 mil) w.f.t.			
Ambient Air Temperature	5 °C (41 °F) min. / 35 °C (95 °F) max.			
Relative Air Humidity	80 % R.H. max.			
Substrate Temperature	5 °C (41 °F) min. / 60 °C (140 °F) max			
Dew Point	Beware of condensation. The substrate and uncured coating must be ≥ 3 °C (5 °F) above dew point.			
Substrate Moisture Content	≤ 4 % pbw moisture content. Test method: Sika®-Tramex meter No rising moisture according to ASTM (Polyethylene-sheet).			
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 one (1) hour approx. (20 °C, 68 °F / 50 % R.H.).			
Waiting Time / Overcoating	Ambient conditions	Minimum waiting time overcoating		
	4 °C (40 °F) / 50 % R.H.	14 hours		
	10 °C (50 °F) / 50 % R.H.	6 hours		
	21 °C (70 °F) / 50 % R.H.	5 hours		
	*After seven (7) 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
	4 °C (40 °F) / 50 % R.H.	10 minutes*	12 hours	24 hours
	10 °C (50 °F) / 50 % R.H.	10 minutes*	6 hours	18-24 hours
	21 °C (70 °F) / 50 % R.H.	10 minutes*	4 hours	12-18 hours
	Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.			

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.
Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

LIMITATIONS

- Minimum age of concrete must be 28 days depending on curing and drying conditions.
- Do not thin with solvents.
- Do not store materials outdoors directly exposed to sunlight and moisture. Cover and protect material with breathable type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Observe temperature storage and conditioning requirements.

- Do not apply to substrate surfaces where moisture vapour transmission will occur during application and cure. This condition may be checked using ASTM D4263 (Polyethylene sheet method).
- Substrate must be dry prior to application. Do not apply to a frosted, wet or damp surface. Allow sufficient time for the substrate to dry after rain or inclement weather, as there is the potential for bonding problems.
- On substrates likely to exhibit outgassing apply during falling ambient and substrate temperature. If applied during rising temperature pinholing or blistering may occur.
- Do not use for indoor applications unless sufficient air flow and ventilation are provided to prevent odours and/or vapours from leaving the immediate work area.
- Precautions should be taken to prevent odours and/or vapours from entering the building/structure, including but not limited to turning off and sealing air intake vents or other means of ingress for odours and/or vapours into the building/structure during product application and cure.
- For areas with direct exposure to heavy or frequent foot traffic, an additional wear coat protection with slip resistant aggregate is required. Opening to traffic prior to cure may result in loss of aggregate or permanent staining and subsequent premature failure.
- Do not apply cementitious products, such as tile mortar directly onto Sikalastic®-621 TC. Refer to Sikalastic®-624 WP or Sikalastic®-644 Lo VOC Product Data Sheet.
- Any repairs required to achieve a level surface must be performed prior to application (consult a Sika representative for guidance on various product solutions). Surface irregularities may reflect through the cured system.
- When applying over existing coatings or membranes compatibility and adhesion testing and subsequent approval by Technical Services is required.
- Opening to traffic prior to cure may result in loss of aggregate or permanent staining and subsequent premature failure.
- On grade concrete decks should not be covered with Sikalastic® RoofPro membrane systems.
- Unvented metal pan, split/sandwich slab with encapsulated membrane and/or insulation, cinder fill decks, and lightweight insulating concrete deck overlays should not be covered with Sikalastic® RoofPro systems without additional deck evaluation and subsequent approval by Sika Canada.
- Do not subject Sikalastic®-621 TC to continuous immersion, i.e., fountains, ponds, pools, or tank linings.
- Not recommended for use over ceramic tile.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS

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provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All substrate surfaces shall be clean, dry and sound. Acceptable substrates include: sound concrete and cementitious screed, metals, wood, modified bitumen, mineralized felt, EPDM, hypalon, TPO, sprayed-polyurethane foam, brick and stone, slate and tile, and existing liquid-applied membranes. Reference separate System Data Sheet for specific surface preparation requirements.

Primer

Apply primer of a type suitable for the substrate. Allow primer to cure completely before applying Sikalastic®-621 TC resin. Reference separate System Data Sheet for specific primer recommendations.

MIXING

No mixing necessary

APPLICATION

Sika® Reemat - Base Resin

Apply Sikalastic®-621 TC resin to the primed substrate surface by means of 12.7 mm (1/2 in) nap phenolic resin core roller or brush at the specified application rate to achieve a uniform and consistent wet mil thickness (reference separate System Data Sheet). Material can also be squeegee- or spray-applied, in which case it should also be backrolled. Apply Sika® Reemat into the wet embedment resin and roll the scrim to achieve full saturation and embedment. Reemat shall be cut to conform to substrate transitions and flashing conditions, with a typical 50.8 mm (2 in) reinforcement overlap. Resin shall saturate the Reemat from below. Apply additional Sikalastic®-621 TC resin as required to ensure full scrim embedment. Allow to cure completely before applying subsequent resin layers.

Sika® Reemat - Intermediate and Top Resin

Apply Sikalastic®-621 TC resin to the cured Sikalastic®/Reemat base layer by means of 12.7 mm (1/2 in) nap phenolic resin core roller or brush at the specified application rate to achieve a uniform and consistent wet mil thickness (reference separate System Data Sheet). Material can also be squeegee- or spray-applied, in which case it should also be backrolled. Allow to cure completely before applying any subsequent resin layer, if specified.

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CLEAN UP

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

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.

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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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