

PRODUCT DATA SHEET

Sikalastic®-530 Thermic AP

(formerly Davco K10 SolarTAC)

1-PART LIQUID APPLIED MEMBRANE FOR WALL AND ROOF WATERPROOFING WITH THERMAL INSULATING PROPERTIES

DESCRIPTION

Sikalastic®-530 Thermic AP is a 1-part, acrylic, water based, elastic, cold applied liquid membrane that can be applied directly from the container. It contains addition of polymeric microspheres that creates a layer of insulation that minimises surface temperature of the membrane and therefore increases thermal efficiency of the building. The Product provides a seamless, smooth waterproof finish which is resistant to UV exposure and has elastic properties.

USES

The Product is used for:

- Flat and sloping fully exposed roof structures
- New construction and refurbishment projects
- Waterproofing and renovation of old roof tiles
- Waterproofing of external walls
- Roofs with numerous details such as penetrations, drains, roof lights and complex geometry

The Product is used on the following substrates:

- Concrete and cementitious substrates
- Brick
- Unglazed clay tiles
- Unglazed ceramic tiles
- Metal roof

CHARACTERISTICS / ADVANTAGES

- Minimises the surface temperature on roof and walls
- Reduces energy for cooling of buildings
- High adhesion to concrete, render and masonry
- Low VOC content
- Resistant to permanent UV exposure
- Good resistance to mould and fungus
- Cold applied - requires no heat or flame
- Applied by brush or roller

APPROVALS / STANDARDS

Certified Singapore Green Building Product - SGBC Green Marks 4 Ticks: Leader

PRODUCT INFORMATION

Chemical Base	Acrylic
Packaging	20 L containers Refer to the current price list for available packaging variations.
Shelf Life	12 months from date of production
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.
Density	(1.20 ± 0.05) kg/L (at +23° C) (EN ISO 2811-1)

Solid content by weight (60 ± 3) %

Solid content by volume (50 ± 3) %

TECHNICAL INFORMATION

Tensile Strength 2 N/mm² (ASTM D412)

Elongation at Break 200 % (ASTM D412)

Crack Bridging Ability	Unreinforced	No crack at 2 mm crack width	(ASTM C836)
	Unreinforced	No crack after 10 cycles of opening and closing to 1 mm crack width	

Thermal Conductivity 0.045 W/m.K

SYSTEM INFORMATION

System Structure

ROOF COATING:

Layer	Product	Consumption
Primer*	Davco Acrylic Primer	~0.1 – 0.2 L/m ²
First Coat	Sikalastic®-530 Thermic AP	~0.9 L/m ²
Second Coat	Sikalastic®-530 Thermic AP	~0.9 L/m ²

REINFORCED ROOF WATERPROOFING:

Layer	Product	Consumption
Primer*	Davco Acrylic Primer	~0.1 – 0.2 L/m ²
First Coat	Sikalastic®-530 Thermic AP	~1.2 L/m ²
Reinforcement	Davco Sovamesh	Per m ²
Second Coat	Sikalastic®-530 Thermic AP	~0.45 L/m ²
Third Coat	Sikalastic®-530 Thermic AP	~0.45 L/m ²

Primer* : For metal substrate, use Davco Primer XP or Davco/Sika recommended primer.

Note: Consumption data is theoretical and does 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.

APPLICATION INFORMATION

Product Temperature	Maximum	+40 °C
	Minimum	+5 °C

Ambient Air Temperature	Maximum	+40 °C
	Minimum	+5 °C

Relative Air Humidity 80 % maximum

Dew Point Beware of condensation. The substrate and uncured applied roof material must be at least +3 °C above dew point to reduce the risk of condensation on the surface finish.

Substrate Temperature	Maximum	+40 °C	
	Minimum	+5 °C	
Substrate Moisture Content	Substrate	Test method	Moisture content
	Cementitious substrates	Sika® Tramex moisture metre	≤ 6 %
	Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %
No rising moisture (ASTM D4263, polyethylene sheet) The substrate must be visibly dry with no standing moisture.			
Waiting Time / Overcoating	4 – 6 hours Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.		

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.

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.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project:

SUBSTRATE PREPARATION EQUIPMENT

- Abrasive blast cleaning / planing / scarifying or grinding equipment.
- Manual or mechanical wire brushes.
- High pressure power washer.

For other types of preparation equipment, contact Sika Technical Services.

MIXING EQUIPMENT

- Electric single or double paddle mixer (300–400 rpm) with spiral paddle

APPLICATION EQUIPMENT

- Brush: Soft bristle
- Roller: Solvent resistant fleece

SUBSTRATE PREPARATION

IMPORTANT

System design

Consider the following when designing the system:

1. The supporting structure must be of sufficient structural strength to support all new and existing layers of the system build-up.
2. If used as a roof system, the complete system must be designed to withstand and be secured against wind uplift loadings.
3. Reinforcement (partial or total) must be used over dynamic cracks and joints.

GENERAL

Substrates must be free of standing water (no puddles) clean and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, and associated system products, by industrial vacuuming equipment.

To confirm adequate surface preparation and product adhesion, carry out a trial before full application together with adhesion tests.

CEMENTITIOUS SUBSTRATES

1. Substrate must be sound with a minimum tensile adhesion strength of 1.5 N/mm², clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
2. New concrete must be cured for at least 28 days and have a tensile strength > 1.5 N/mm².
3. Cementitious substrates must be prepared mechanically using substrate preparation equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness.
4. High spots can be removed by grinding.
5. Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed.
6. Repairs to the substrate, filling of joints, blowholes / voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before application of the waterproofing system.

BRICK AND STONE

1. Mortar joints must be sound and flush pointed.
2. Replace loose bricks, stone and mortar.
3. Thoroughly clean the surface by power washing and allow to dry.

UNGLAZED CERAMIC TILES

1. Ensure all tiles are securely fixed.
2. Replace any broken, loose or missing sections.
3. Thoroughly clean the surface by power washing and allow to dry.

CLAY TILES

1. Ensure all tiles are securely fixed.
2. Replace any broken, loose or missing sections.
3. Thoroughly clean the surface by power washing and allow to dry.

MIXING

IMPORTANT

Avoid over-mixing to minimise air entrainment. Product is supplied ready to use. Before application, mix for at least 1 minute or until the liquid is uniform.

APPLICATION

IMPORTANT

Protect from rain

After application, the product must be protected from heavy rain or rain showers until dry to prevent surface damage.

Application of successive coats

To prevent a reduction in product performance the following actions are necessary when applying successive coats.

1. Ensure product is totally dry and the surface is without pinholes before applying successive coats.
2. Remove surface water between coating applications.
3. Confirm overcoating times have been achieved between coating applications.

No application on rising moisture

Do not apply on substrates with rising moisture.

INSTALLATION PROCEDURE

Reference must be made to further documentation where applicable, such as a relevant method statement, application manual and installation or working instructions.

PRIMER

Equipment:

- Fleece roller
- Brush

1. Pour the mixed Product onto the surface. The consumption is specified in the individual primer product data sheet Application Information.
2. Apply the Product evenly over the surface with a brush or fleece roller.
3. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

ROOF COATING

Equipment:

- Fleece roller
- Brush

First coat

- Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.

- Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
- Apply the Product with either a rush or a fleece roller.
- **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

Second coat

- Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
- Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
- Apply the Product perpendicularly with either a brush or a fleece roller .
- **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

ROOF WATERPROOFING

Reinforced waterproof membrane

Equipment:

- Fleece roller
- Brush

First coat

- Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
- Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
- Apply the Product with either a brush or a fleece roller.
- **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

Reinforcement application

- For the best results work 1.0 m at a time lengthways applying the 1st coat and embedding the reinforcement.
- Make sure reinforcement overlaps are minimum 50 mm.
- Lay the reinforcement onto the wet 1st coat
- Use a short pile roller to roll over the reinforcement and resin

The coating is continuous and pore free.

Second coat

- Check if the reinforcement is embeded properly, if necessary use sand paper to ensure that the surface is even. If the surface was contaminated with dust or dirt clean the surface with water and light detergent, wait until the surface is dry before applying 2nd coat. Remove any standing water before application.

- Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
- Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
- Apply the Product perpendicularly with one either a brush or a fleece roller.
- **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

Third coat

- Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
- Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
- Apply the Product perpendicularly with one either a brush or a fleece roller.
- **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

CLEANING OF TOOLS

Clean all tools and application equipment with water and mild detergent immediately after use. Hardened material can only be removed mechanically.

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.

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