Construction

Sikalastic®-560 MY

Economical and eco-friendly Polyurethane modified Acrylic Dispersion liquid applied roof waterproofing membrane

Product Description	Sikalastic®-560 MY is a cold-applied, one-component waterborne liquid applied waterproofing membrane, highly elastic and UV-resistant. It seals roof leaks and considerably extends the roof service life.
Uses	■ For exposed roof waterproofing solutions in both new construction and refurbishment projects (concrete, metal, wood & tiles) ■ For waterproofing layer under tiles (e.g. terraces and podium roof) ■ For roofs with many details and complex geometry when accessibility is limited ■ For cost efficient life cycle extension of failing roofs ■ As solar reflective coating to enhance energy efficiency by reducing cooling costs
Characteristics / Advantages	■ One-component, water based, ready to use ■ Eco-friendly: solvent free (low VOC) ■ Easy and completely seamless application ■ Durable waterproofing system ■ Versatile uses ■ Excellent resistance to UV, yellowing and weathering ■ Highly elastic and crack-bridging ■ Excellent adhesion on porous and non porous substrates ■ Water vapour permeable

Environmental Information

Specific Characteristics	■ Non-toxic and VOC compliant water based coating ■ Odourless ■ Conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings: VOC < 100 g/l

Product Data

Form

Appearance / Colours	Standard colour: Blue Grey (~RAL 7031) and Pure White (~RAL 9010) Available in various colour upon request (subject to minimum order quantity)
Packaging	20 kg plastic pails

Storage

Storage Conditions / Shelf Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.

Technical Data

Chemical Base	Polyurethane modified Acrylic Dispersion
Density	1.40 kg/l All density values at +23 °C
Solid Content	~ 50% by volume
Service Temperature	-10°C to +80°C (with Sika® Reemat reinforcement) -5°C to +80°C (without Sika® Reemat reinforcement)

Mechanical / Physical Properties

Tensile Strength	Free film:	~ 1.5 N/mm^2	(ASTM D412)
Elongation at Break	Free film:	~ 320%	(ASTM D412)

System Information

System Structure

Roof Waterproofing – Economical System

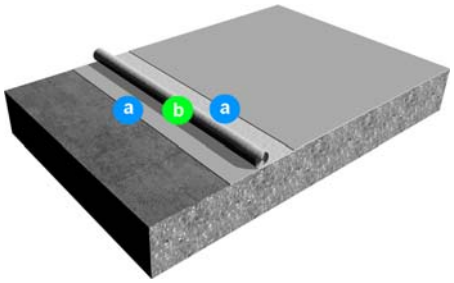
For basic roof waterproofing solutions in new construction and refurbishment project, UV-stable coating, extend life of old roofs or as solar reflective coating to enhance energy efficiency.

Build up:	1x Sikalastic®-560 MY + 10% water = 0.4 kg/m^2 2x Sikalastic®-560 MY = 0.50 kg/m^2/layer
Substrates:	Concrete, metal, wood & tiles
Primer:	Please refer to substrate preparation below
Total Thickness:	~ 0.5 mm thick
Total Consumption:	~ 1.40 kg/m^2

System Structure

Roof Waterproofing – High Standard System

For higher standard roof waterproofing solutions in new construction and refurbishment project, UV-stable coating, extend life of old roofs or as solar reflective coating to enhance energy efficiency.



Build up:	1x Sikalastic®-560 MY + 10% water = 0.4 kg/m^2 1x Sikalastic®-560 MY = 0.50 kg/m^2/layer Sika® Reemat Standard reinforcement 2x Sikalastic®-560 MY = 0.50 kg/m^2/layer
Substrates:	Concrete, metal, wood & tiles
Primer:	Please refer to substrate preparation below
Total Thickness:	~ 1.0 mm thick
Total Consumption:	~ 1.9 - 2.0 kg/m^2

Sika® Reemat Standard is applied at areas with high movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.

a) Primer layer Sikalastic®-560 MY + 10% water and 1x Sikalastic®-560 MY

b) 1x layer Sika® Reemat Standard

a) 2x layer finish coat Sikalastic®-560 MY

	One component product. Stir before using
	UV resistant and resistant to yellowing
	Highly elastic and crack-bridging
	Vapour permeable
	Easy application by brush, roller or airless spray equipment even when accessibility is limited
	Bonds fully to most substrates, preventing the migration of water
	Seamless waterproofing membrane

	Fire resistant
	Compatible with bituminous felts
	Resistant to wind uplift
	Wide colour range available

Application Details

Substrate Treatment

Cementitious substrates:

New concrete should be cured for at least 28 days and should have a Pull off strength ≥ 1.5 N/mm^2.

Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.

Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.

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.

High spots must be removed by e.g. grinding.

Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Installing the membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial, therefore, to apply the embedment coat in the late afternoon or evening.

Prime the substrate and always use a reinforced system.

Brick and stone:

Mortar joints must be sound and preferably flush pointed. Use localised reinforcement over joints and prime before applying Sikalastic®-560 MY.

Slates, tiles, etc.:

Ensure all slates/tiles are sound and securely fastened, replacing obviously broken or missing sections. Fully glazed tiles must be abraded prior to priming and subsequent treatment with Sikalastic®-560 MY.

Bituminous felt:
Ensure that Bituminous felt is firmly adhered or mechanically fixed to the substrate. Bituminous felt should not contain any badly degraded areas. Prime and always use a totally reinforced system.

Bituminous coatings:
Bituminous coatings should not have sticky or mobile surfaces, volatile mastic coatings, or old coal tar coatings. Prime and always use a totally reinforced system.

Metals:
Metals must be in sound condition. Abrade exposed surfaces to reveal bright metal. Use localised reinforcement over joints and fixings.

Wooden substrates:
Timber and timber based panel roof decks are to be in good condition, firmly adhered, or mechanically fixed.

Paints/Coatings:
Ensure the existing material is sound and firmly adhered. Remove any oxidized layers and use localised reinforcement over joints.

Substrate Preparation

Substrate Priming

Substrate	Primer	Consumption [kg/m^2]
Cementitious substrates	Sikalastic®-560 MY diluted with 10% water.	≈ 0.4
Brick and Stone	Sikalastic®-560 MY diluted with 10% water.	≈ 0.4
Slate, tiles, etc.	Sikalastic®-560 MY diluted with 10% water.	≈ 0.4
Bituminous felt	Only required for high reflectivity applications (Sikalastic® Metal Primer) Fully reinforced System only!	≈ 0.2
Bituminous coatings	Only required for high reflectivity applications (Sikalastic® Metal Primer) Fully reinforced System only!	≈ 0.2
Metals Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel	Sikalastic® -Metal Primer.	≈ 0.2
Wooden substrates	Sikalastic®-560 MY diluted with 10% water	≈ 0.4
Paints	Subject to adhesion and compatibility tests.	≈ 0.4

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

Application Conditions / Limitations

Substrate Temperature	+8 °C min. / +35 °C max.
Ambient Temperature	+8 °C min. / +35 °C max.
Substrate Moisture Content	< 6 % moisture content. No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.
Relative Air Humidity	80 % max.
Dew Point	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point.

Application Instructions

Mixing	Prior to application, stir Sikalastic®-560 MY thoroughly for 1 minute in order to achieve a homogeneous mixture. Over mixing must be avoided to minimise air entrainment. Sikalastic®-560 MY must be thoroughly stirred using a low speed electric stirrer (300 – 400 rpm) or other suitable equipment.

Application Method / Tools

Application Method (please refer to the most recent issue of the Method Statement)

Prior the application of Sikalastic®-560 MY the priming coat must have cured tack-free. For the Waiting Time / Overcoating please refer to the PDS of the appropriate primer. Damageable areas (door frame) have to be protected with an adhesive tape.

Economical System: Sikalastic®-560 MY is applied in one (1) or more coats. Prior to the application of a 2nd coat the indicated waiting time in the table below Waiting Time / Overcoating shall be allowed.

High Standard System: Sikalastic®-560 MY is applied in combination with Sika® Reemat Standard.

Application with Sika® Reemat Standard

1. Apply first coat (~1.0 kg/m^2) of Sikalastic®-560 MY on a length of approx. 1m.
2. Roll in the Sika® Reemat Standard and ensure that there are no bubbles or creases. Overlapping of the Sika® Reemat Standard minimal 5 cm.
3. Repeat step 1-2 until the roof area is waterproofed.
4. After the first coat is dry, seal the roof area with second coat of Sikalastic®-560 MY (~0.50 kg/m²).
5. After the second coat is dry, seal the roof area with third coat of Sikalastic®-560 MY (~0.50 kg/m²).

Please note, always begin with details prior starting with waterproofing the horizontal surface. For details follow step 1-5.

Tools:

Sikalastic®-560 MY

- by Brush: With thick hair brush.
- by Roller: With a solvent resistant, short-piled lamb skin roller.
- by Trowel: The first layer of Sikalastic®-560 MY can be applied with a toothed trowel.

Never use the trowel for Sikalastic®-560 MY if Sika® Reemat Standard is underneath.

- by Airless Spray Machine: Used only for the economical systems. Two spray applied layers is the minimum requirement. The pump should have the following parameter:
  - min. pressure: 220 bar
  - min. output: 5.1 l/min
  - min. ∅ nozzle: 0.83mm (0.033 inch)

  For example: Wagner Heavycoat HC 940 E SSP Spraypack

Cleaning of Tools

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

Pot Life

Sikalastic®-560 MY is designed for fast drying. High temperatures combined with low air humidity and high air circulation will increase the drying process.

Thus, material in opened containers shall be applied immediately. In opened containers, the material will form a film within 1 – 2 hours.

Waiting Time / Overcoating

Before applying Sikalastic®-560 MY on primer Sikalastic®-560 MY diluted with 10% water:

Substrate Temperature	Relative humidity	Minimum	Maximum
+10°C	50%	~ 4 hours	After thorough cleaning [1] Sikalastic®-560 MY can be overworked at any time
+20°C	50%	~ 2 hours	
+30°C	50%	~ 1 hour	

Before applying Sikalastic®-560 MY on Sikalastic®-560 MY (without Sika® Reemat Standard) allow 1st coat to dry:

Substrate Temperature	Relative humidity	Minimum	Maximum
+10°C	50%	~ 8 hours	After thorough cleaning [1] Sikalastic®-560 MY can be overworked with itself at any time
+20°C	50%	~ 6 hours	
+30°C	50%	~ 4 hours	

Before applying Sikalastic®-560 MY topcoat on Sikalastic®-560 MY reinforced with Sika® Reemat Standard allow material to dry:

Substrate Temperature	Relative humidity	Minimum	Maximum
+10°C	50%	~ 36 hours	After thorough cleaning [1] Sikalastic®-560 MY can be overworked with itself at any time
+20°C	50%	~ 24 hours	
+30°C	50%	~ 12 hours	

1) Assuming that all dirt has been removed and contamination is avoided.

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

Notes on Application / Limitations

Do not apply Sikalastic®-560 MY on substrates with rising moisture.

Always apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.

Ensure that temperature does not drop below 8°C and that relative humidity does not exceed 80% until the Membrane has fully cured.

Ensure that Sikalastic®-560 MY is totally dry and the surface is without pinholes before applying any top coat.

Do not allow temporary ponding to remain between coats on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time.

Sikalastic®-560 MY should not be applied on roofs subject to long-term ponding water.

Sikalastic®-560 MY should not be applied on roofs subject to long-term ponding water with subsequent periods of frost. In cold climatic zones for Roofing structures with a pitch of less than 3% appropriate measures must have to be considered.

Do not apply Sikalastic®-560 MY directly on insulation boards. Instead use a separation layer like Sikalastic®-Carrier between insulation board and Sikalastic®-560 MY.

Sika® Reemat Standard can be used as total reinforcement or for partial reinforcements over dynamic cracks and joints.

Sikalastic®-560 MY is not recommended for pedestrian traffic. In case pedestrian traffic is unavoidable, Sikalastic®-560 MY shall be covered with appropriate elements such as tiles, stone plates or wooden panels.

Do not apply cementitious products (e.g. tile mortar) directly onto Sikalastic®-560 MY. Use an alkaline barrier, for example kiln dried quartz sand.

Construction

Curing Details

Applied Product ready for use

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

Substrate Temperature	Relative humidity	Touch dry	Rain resistant	Full cure
+10°C	50%	~ 4 hours	~ 12 hours	~ 6 days
+20°C	50%	~ 2 hour	~ 8 hours	~ 4 days
+30°C	50%	~ 1 hour	~ 4 hours	~ 2 days

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

Value Base

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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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