BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-702

Liquid 2-component, cold applied, self-smoothing, elastic polyurea hybrid membrane for nonexposed roofing/waterproofing

PRODUCT DESCRIPTION

Sikalastic®-702 is a two component, cold applied, self-smoothing, elastic, polyurea based liquid roofing/ waterproofing membrane. Used as a base for Sikalastic 701 SF.

USES

Sikalastic®-702 may only be used by experienced professionals.

Designed for the following roof waterproofing applications:
- Flat or protected roofing/waterproofing
- New construction and refurbishment projects
- Roofs with numerous details such as penetrations, drains, roof lights and complex geometry
- Balcony and terrace decks underneath a protective layer (i.e. ballast, paving slabs, tiles)
- Alternative option for small projects where application machinery is not practical

CHARACTERISTICS / ADVANTAGES

- Cold applied - requires no heat or flame
- Hand applied application, no specialized equipment needed
- Applied by notched rubber or metal squeegees
- High elasticity and elongation at break
- Non reinforced and reinforced options for systems
- Self-smoothing
- Good adhesion to many substrates with the appropriate primers
- Resistant to ponding water
- Root resistant

PRODUCT INFORMATION

Chemical Base	Elastomeric PU/PUA hybrid	
Packaging	Part A	1 gal (4,0 L)
	Part B	4 gal (15,5 L)
	Part A+B	5 gal (20.1 L)
Color	Medium Grey	
Shelf Life	12 months for both A & B components	
Storage Conditions	Product must be stored in original, unopened and undamaged packaging in	

	dry conditions at temperatures between 41°F(+5°C) and 86°F(+30°C). Always refer to packaging.	
Density	~1.24 kg/L (Mixed A+B)	(DIN EN ISO 2811-11)
Volatile organic compound (VOC) content	3.86 g/L	
Solid content by mass	~100 % (Part A & B)	
Solid content by volume	~100 % (Part A & B)	

TECHNICAL INFORMATION

Resistance to Root Penetration	Root resistant	(DIN CEN/TS 14416)
Tensile Strength	~10.0 N/mm²	(DIN EN ISO 527-3)
Elongation at Break	~900 %	(DIN EN ISO 527-3)
Tensile Adhesion Strength	~2.5 N/mm² Value measured using Sika® Concrete Primer LO	(DIN EN ISO 4624)
Tear Strength	~13.8 N/mm²	(ISO 6383-2)
External Fire Performance	B_{roof} T1 / B_{roof} T4	(ENV 1187)
Reaction to Fire	Euroclass E	(EN 13501-1)
Chemical Resistance	Resistant to many chemical based cleaners. Contact Sika Technical Services for additional information.	
Water Vapor Transmission	0.10 Perms	ASTM E96 (Method B)

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B = 1 : 1.72 (by weight)
Product Temperature	50°F(+10°C) min. / 77°F(+25°C) max.
Ambient Air Temperature	35.6°F(+2°C) min. / 104°F(+40°C) max.
Relative Air Humidity	35 % min / 80 % max.
Dew Point	Beware of condensation. The substrate and uncured applied membrane must be at least 35.6°F(+2°C) and 5°F above the dew point (air and substrate) to reduce risk of condensation or blooming on the membrane finish.
Substrate Temperature	35.6°F(+2°C) min. / 104°F(+40°C) max.
Substrate Moisture Content	≤ 4 % parts by weight. The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).
Pot Life	~25 minutes at 68°F(+20°C) Pot life will decrease at higher temperatures and increase at lower temperatures.

Test Results

Temperature	Relative Humidity	Rain Resistant	Foot Traffic/Overcoating	Full Cure
50°F(+10 °C)	~50 %	~3 hours	~10 hours	~28 hours
68°F(+20 °C)	~50 %	~2 hours	~6 hours	~24 hours
86°F(+30 °C)	~50 %	~1 hour	~4 hours	~20 hours

SYSTEM INFORMATION

System Structure

Exposed System - Chemical Containment or Cooling Tower Areas with Sikalastic - 702/701 SF

	Sikalastic Warranty 20-Year
1. Primer	See Priming Guide**
2. Base Layer Sikalastic 702	80 mils (wft)**
3. Top Layer Sikalastic 701 SF	10-12 mils (wft)

Exposed Unreinforced System with Sikalastic - 702/701 SF

	Sikalastic Warranty 20-Year
1. Primer	See Priming Guide**
2. Base Layer Sikalastic 702	80 mils (wft)**
3. Top Layer Sikalastic 701 SF	10-12 mils (wft)

Unreinforced Protected Membrane System with Sikalastic -702

	Sikalastic Warranty 20-Year
1. Primer	See Priming Guide**
2. Base Layer Sikalastic 702	40 mils (wft)**
3. Top Layer Sikalastic 702	40 mils (wft)

Optional Reinforced Systems - 702 or 702/701 SF (local or fully reinforced)***

	Sikalastic Warranty 20-Year
1. Primer	See Priming Guide**
2. Base Layer Sikalastic 702	40 mils (wft)**
3. Reinforcement	PAREX Reinforcing Mesh 355
4. Top Layer Sikalastic 702	40 mils (wft)**
5. Top Layer (UV Protection) 701 SF	10-12 mils (wft)**

****Allow each layer to cure before applying the consecutive layer.
*****Localized Reinforcement:** Prior to applying the specified coating system install Sika Joint Tape SA or PAREX Synergy Reinforcing Mesh 355 set in a wet base coat of Sikalastic 702 or Sikalastic 702 THX. Center the reinforcement over all laps, seams, cracks, joints and transitions of dissimilar material.

Note:

- For unreinforced system, a substrate evaluation is required
- Approved substrates: Concrete Slabs, Concrete, Cementitious, Metals
- Protection layer is required between membrane & overburden
- Sikalastic 702 THX is required for all sloped & vertical surfaces
- Sikalastic 702 & 702 THX must be overcoated within 48 hrs. with Sikalastic 701 SF
- Where slip resistance or walkway is required, broadcast to refusal a min. 16/30 or 20/40 oven dried silica sand into the second top coat of 701 SF while still wet
- Adhesion key for cementitious overlay, broadcast to refusal a min, 30/60 oven dried silica sand into the additional coat of 702

Dry film thickness

Sikalastic Warranty 20 - 702 System	80 mil dry film thickness
Sikalastic Warranty 20 - 702/701 SF	min 88 mils dry film thickness

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

Installation work must only be carried out by Sika trained and approved contractors, experienced in this type of application.

- Products must only be applied in accordance with their intended use
- Do not apply on substrates with rising moisture
- Exposed to direct sunlight (UV) product will discolor
- UV protection layer must be applied within 7-days
- 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 vapor transmission will occur during application and cure.This condition may be checked using ASTM D 4263 (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 temperatures “pin holing” may occur from rising vapor. Sikalastic® GDC Primer may assist with reducing or eliminating this effect
- Do not use for indoor applications unless sufficient air flow and ventilation are provided to prevent odors and/or vapors from leaving the immediate work area. Precautions should be taken to prevent odors and/or vapors from entering the building/structure, including but not limited to turning off and sealing air intake vents or other means of ingress 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
- 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
- On grade concrete decks should not be covered with Sikalastic® 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® systems without additional deck evaluation and subsequent approval by Technical Services
- Not recommended for use over ceramic tile

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

- The supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up. Complete roof system must be designed and secured against wind uplift loadings.
- Suitable substrates: Concrete Slabs, Concrete, Cementitious, Metals, Asphaltic BUR's, bituminous felts and coatings, brickwork, asbestos cement.
- All existing surfaces must be sound, well addered and/or completely attached to stucture. All deleterious materials must be removed and replaced with like in kind

SUBSTRATE PREPARATION

Concrete and Cementitious Substrates

New concrete shall be allowed to cure a minimum of 28 days. Concrete shall have a minimum compressive strength of 20.7 MPa (3000 psi) and exhibit a minimum tensile bond strength of 1.4 MPa (200 psi). time. Moist or sheet curing methods should be used, as opposed to the use of curing compounds, which may interfere with the bond of the membrane. Inspect the concrete, including upstands, and all areas should be hammer or chain drag tested. Concrete must be suitably finished, preferably by wood float or steel pan. A power float finish is acceptable where the surface is prepared to avoid laitance (a tamped finish is not acceptable). The surface finish must be uniform and free from defects such as laitance, voids or honeycombing.

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 (CSP 2-4 per ICRI guidelines). Loose friable material and weak concrete

must be completely removed and surface defects such as blowholes and voids must be fully exposed. The amount of embedment coat required may increase over rough or highly porous surfaces. Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out. Consult Sika for product recommendations based on project requirements. High spots must be removed by grinding or similar method. Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in liquid applied materials. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any roofing work. Particular requirements for priming must also be considered. Installing the primer and membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial, therefore, to apply the primer and embedment coat in the late afternoon or evening.

Brick
Mortar joints must be sound and preferably flush pointed. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required.

Asphalt
Asphalt contains volatiles which can cause bleeding and slight non-detrimental staining. The asphalt must be carefully assessed for moisture and/or air entrapment, grade and surface finish. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required. All major cracks should be sealed to allow continuity of the Sikalastic® system.

Bituminous Roofing
Ensure that bituminous roofing is firmly adhered or mechanically fixed to the substrate. Bituminous roofing shall not contain badly degraded areas. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required. Treat blisters by star cutting and removing any underlying water. Allow to dry and readhere using suitable adhesive

Bituminous Coatings
Bituminous coatings should not be sticky or mobile. Volatile mastic coatings, or old coal tar coatings are not acceptible. Remove any loose or degraded coatings.

Metals
Metals must be in sound condition. Ferrous metals should be thoroughly cleaned by grinding or blast cleaning prior to priming (SSPC-SP3 to SP11 near-white metal). Non-ferrous metals are prepared by removing any deposits of dust and oxidation and abrading to bright metal. Wire brushing can be used for soft metal such as lead. The surface must be clean and free from grease which, if present, must be removed with a solvent wipe or wash with detergent, rinse and dry. Stainless Steel must be mechanically abraded or ground to create an appropriate anchor profile.

Paints and Coatings (Sika technical evaluation required)
Ensure the existing material is sound and firmly adhered. Remove any loose or degraded coatings. Ensure the surface is clean and free from oxidation, dust, dirt, and debris. Power wash and use biodegradable non-sudsing detergent with clean water rinse as required. Allow to dry

Existing Membrane Roofing
The existing Membrane System shall be soundly adhered to the substrate. Clean the membrane using a pressure washer at approximately 140bar (2000 psi) and biodegradeable non-sudsing detergent with clean water rinse. Allow to dry.

SURFACE PREPARATION

Substrate Pre-Treatment
Refer to Priming Guide to select primer for properly evaluated and prepared substrate. Refer to separate primer Product Data Sheet for application methods, coverage rates, cure times and recoat windows. Always allow primer to cure thoroughly before applying detail or base resin layer.

SIKALASTIC® 702 PRIMING GUIDE

Substrates and Primer Options
Concrete *1
Sikalastic® GDC Primer
Sikalastic® EP Primer/Sealer
Lightweight Structural Concrete *1
Sikalastic® GDC Primer
Sikalastic® EP Primer/Sealer
Brick *3
Sikalastic® EP Primer/Sealer
Bituminous Substrate Asphalt, Bituminous Felts, Bituminous Coatings, Granulated or Smooth SBS & Aged APP Cap Sheets *2,3
Sikalastic® EP Primer/Sealer
Single Ply PVC Membranes *3
Sikalastic® EP Primer/Sealer
Wood - Timber & Plywood *4
Sikalastic® EP Primer/Sealer
Metal *3 Aluminium, Galvanized, Cast Iron, Copper, Lead, Brass, Stainless Steel, Steel, Zinc
Sikalastic® EP Primer/Sealer
Pre-Coated Metal *3 Paints & Coatings *3
Sikalastic® EP Primer/Sealer

***Consult Sika**
1 New cementitious substrates must be Portland base and be cured min. 28 days.
2 The presence of volatile bitumen may cause discoloration of Sikalastic® if not properly primed.
3 Surface evaluation and field adhesion testing.
4 Pressure treated lumber consult Sika

MIXING

IMPORTANT
Do not dilute.
RESIN MIXING PROCEDURE
1. Mix Part A (resin) with a mechanical mixer (Jiffy) at slow speed until the colored pigment is dispersed and a uniform color is achieved.
2. Add Part B (hardener) to Part A.
3. Using a mechanical mixer (Jiffy) at slow speed, mix Part A + B continuously for ~3 minutes until a uniformly colored mix is achieved. **IMPORTANT** Do not mix excessively.
4. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing

PRIMER MIXING
Refer to individual primer Product Data Sheets for proper mixing instruction

APPLICATION

Detailing

Sloped & Vertical Surfaces
Apply Sikalastic 702 THX as the base resin.

Non-structural Cracks Up To 1/16"
Detail application not necessary. Apply embedment/base resin layer per instruction. Non-structural cracks between 1/16'' and 1/4'' Rout and seal with Sikaflex® sealant. Apply 3'' Sika® Joint Tape SA centered over the crack. Apply embedment/base resin layer per instruction.

Cracks and Joints Between 1/4" and 1" and above
Consult Sika

Transitions Between Dissimilar Materials
Apply Sika® Joint Tape SA centered over edge or PAREX Reinforcing Mesh 355 set in a base coat of Sikalastic 702 THX. Apply embedment/base resin layer per instruction
Base Resin Layer
Apply mixed Sikalastic® -702 using a notched squeegee, roll with a spiked pin roller and allow to cure.
Cure a minimum 6 hours at 70 °F and 50 % R.H. or until tack free before top resin layer. Keep clean and dry and apply top resin layer within 48 hours. If window of 48 hours is exceeded but less than 7-days clean with non-sudsing detergent, clean water rinse, and allow to dry prior to application of Sika® Reactivation Primer. If 7 or more days has lapsed a light surface grinding is required. Surface must be clean and dry prior to applying Sika® Reactivation Primer and top coat resin.

Base Embedment Layer with PAREX Reinforcing Mesh 355
Apply mixed Sikalastic® -702 using a notched squeegee, roll with a spiked pin roller, embed the Parex reinforcement into wet base coat and back roll or trowel to fully encapsulate the reinforcement, allow to cure before next coats.
Cure a minimum 6 hours at 70 °F and 50 % R.H. or until tack free before top resin layer. Keep clean and dry and apply top resin layer within 48 hours. If window of 48 hours is exceeded but less than 7-days clean with non-sudsing detergent, clean water rinse, and allow to dry

prior to application of Sika® Reactivation Primer. If 7 or more days has lapsed a light surface grinding is required. Surface must be clean and dry prior to applying Sika® Reactivation Primer and top coat resin.

Aggregate Surfacing
For foot traffic and cementitious overburden adhesion key.
Supplemental aggregate surfacing is required for all applications that will experience direct foot traffic such as balconies, terraces, walkways, and plazas. It is also recommended for areas that experience maintenance foot traffic. Aggregate surfacing is applied in a supplemental resin layer after the Sikalastic membrane has been installed. Aggregate is not applied into the roofing/waterproofing resin top coat.

Full Broadcast and Seal Option
The Full Broadcast and Seal option is intended for use for applications where both enhanced slip resistance and physical protection of the roofing membrane is required. Apply Sikalastic®- 701 SF resin at 10-12 mils wet film thickness to the installed, cured membrane system. While the supplemental resin application is still wet broadcast to rejection (full broadcast/beach) with kiln dried, iron free aggregate. Remove excess aggregate after cure. Seal with an additional coat of Sikalastic 701 SF (10-12 mils wft).

Aggregate Selection
Use clean, rounded or semiangular, oven dried quartz sand with a minimum hardness of 6.5 per the Moh's scale. It should be supplied in prepackaged bags and free of metallic or other impurities. The following size gradations are recommended: ▪ 16/30 or 20/40 mesh for pedestrian traffic systems ▪ 30/60 for adhesion key, cementitious overlay.

Overburden Application
Sikalastic®-702 is used as the waterproofing layer under a wide range of overburden materials. Depending on the overburden type, different surfacing, drainage, and protection layers may be required.

Protected Membrane
Assemblies install Sika drainage mat over the Sikalastic®-702 or Sikalastic®-702/701 SF waterproofing system prior to adding the extruded polystyrene insulation layer. No aggregated membrane surfacing is required.

Concrete Pavers with Pedestal Supports
Install Sika drainage mat over the Sikalastic®-702 or Sikalastic®-702/701 SF waterproofing system to provide additional protection of the membrane under the pedestal supports.

Cementitious or Thin-Set Adhesive
A full aggregate broadcast surfacing is required to provide an adhesion key for the tile adhesive. Apply a supplemental 20 wet mils of Sikalastic®-702 waterproofing resin, followed by a full broadcast of 30/60 kiln-dried sand to refusal, typically 40-50 lbs./100 sf. Remove all loose sand once resin has cured. Do not seal the aggregated surface.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C or similar, immediately after use. Hardened material can only be removed mechanically.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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