



**CARDELLA**  
CONSTRUCTION CO

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Project: 2025003 Passage of Time - Ph. 2  
Parcel ID 23-3S-18-16000-001-000  
Inlet Beach , Florida 62461  
P: 407-456-4547

## RFI #92: Sika Footing Waterproofing Review & Approval Request

<b>Revision</b>	0	<b>Status</b>	Open
<b>To</b>	Adi Klein (OLI Architecture, PLLC) Alex Dmitrashchuk (OLI Architecture, PLLC) Jenny Lin (OLI Architecture, PLLC)	<b>From</b>	Jaime Medina (Cardella Construction Co, LLC)
<b>Date Initiated</b>	Jan 14, 2026	<b>Due Date</b>	Jan 20, 2026
<b>Location</b>		<b>Project Stage</b>	Course of Construction
<b>Cost Impact</b>	TBD	<b>Schedule Impact</b>	TBD
<b>Spec Section</b>		<b>Cost Code</b>	
<b>Drawing Number</b>	A501, S-035,S-301	<b>Reference</b>	
<b>Linked Drawings</b>			
<b>Received From</b>	Tyler Starling (ABG Caulking Contractors, Inc.)		
<b>Copies To</b>	Vardan Awasthi (LERA Engineering, P.C.), Bear Green (Cardella Construction Co, LLC), Sami Matar (LERA Engineering, P.C.), Cameron Moncrief (Cardella Construction Co, LLC), Jeff Smith (Cardella Construction Co, LLC), Will Strange (Cardella Construction Co, LLC), OLI Team Email (OLI Architecture, PLLC), Jeff Villacres (LERA Engineering, P.C.)		

### Activity

<b>Question</b>	<p><b>Question from Jaime Medina Cardella Construction Co, LLC on Wednesday, Jan 14, 2026 at 03:01 PM EST</b></p> <p>Sika has reviewed the current footing and slab details per the contract drawings and the OAC meeting on 1/13/2026 and has provided the attached detail and recommended system for footing waterproofing.</p> <p>The proposed system utilizes the Sika HLM 5000 waterproofing membrane, currently approved for use on the project. The membrane would be applied to the exterior face of the footing, continued horizontally over the top of the footing, and lapped onto the top side of a vapor barrier at least 6". Adhesive or tape would be used to secure the vapor barrier to the footing.</p> <p>Sika noted that this approach represents an upgraded system, transitioning from a barrier that primarily resists water vapor to a membrane that provides full waterproofing.</p> <p>Please review the attached Sika detail, along with additional product material options of Sika 100 VB and Thoroseal 581, with LERA to confirm whether this approach is structurally acceptable and to determine if OLI approves relocating the continuous dry line from the bottom of the footing to the top of the footing.</p> <p>Option 1: Sika HLM 5000</p> <p>Option 2: Sika 100VB epoxy vapor barrier</p> <p>Option 3: Sika Thoroseal 581</p> <p><b>Attachments</b></p> <p><a href="#">PASSAGE OF TIME OAC.pdf</a>, <a href="#">sikalastic-100-vb.pdf</a>, <a href="#">Sika Thoroseal®-581 (Formerly MSeal® 581) - Product Data.pdf</a></p>
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*Awaiting an Official Response*

# PRODUCT DATA SHEET

## Sika Thoroseal®-581

(formerly MSeal 581)

AIR BARRIER AND WATERPROOF CEMENT-BASED COATING FOR CONCRETE AND MASONRY

### PRODUCT DESCRIPTION

Sika Thoroseal®-581 is a Portland cement-based coating for concrete and masonry that resists both air infiltration and positive as well as negative hydrostatic pressure. Polymer-modified with Sika Thoroseal® Acryl 60, Sika Thoroseal®-581 creates a low maintenance and highly durable waterproof barrier.

### USES

- General
- Vertical and light-pedestrian horizontal surfaces
- Interior and exterior
- Above and below grade
- Alternative to mechanical finishing or rubbing of concrete
- Waterproofing basement and retaining walls
- Foundations
- Bridges and tunnels (non-traffic barring surface)
- Water cisterns
- Flashing of rough opening concrete or masonry openings
- Refer to the Specific Application section for installations such as Stucco, Below grade, water tanks, etc.

### Substrates

- Cast-in-place and precast concrete
- Block, brick, and porous stone

### CHARACTERISTICS / ADVANTAGES

- Waterproof to help protect building interiors from dampness and moisture damage
- Air barrier reduces air infiltration
- Resistant to both positive and negative hydrostatic pressure, making Sika Thoroseal®-581 suitable for use below grade interior and exterior and in water treatment construction
- Breathable, allowing interior moisture to escape without damaging the coating
- Compatible with high-performance coatings, including a wide range of architectural coatings and textured finishes
- Hides minor surface defects and blemishes in architectural concrete
- Available in ten landscape colors and custom colors (with minimum order quantities)
- Certified to the NSF/ANSI Standard 61 for potable water contact

### PRODUCT INFORMATION

<b>Chemical Base</b>	Contains cement, graded sand, and proprietary additives.
<b>Packaging</b>	50 lb (22.7 kg) polyethylene-lined bags for Sika Thoroseal®-581 white, standard gray, all landscape colors, and custom colors

<b>Shelf Life</b>	1 year when properly stored
<b>Storage Conditions</b>	Transport and store in unopened containers and keep in a clean, dry place protected from rain, dew, and humidity. Do not stack bags more than two pallets high. If dry onsite storage of bags is unavailable or if the project is located in a very wet, humid climate zone, then specify Sika Thoroseal®-581 packaged in 50 lb (22.7 kg) metal pails.
<b>Appearance / Color</b>	<ul style="list-style-type: none"> <li>▪ White and standard gray</li> <li>▪ Custom and landscape colors are available for 5,000 lbs (2,268 kg) minimum order.</li> <li>▪ One landscape color: pearl gray</li> </ul>
<b>Density</b>	129 lbs/ft <sup>3</sup> (2,080 kg/m <sup>3</sup> ) when cured (Lab Method)

## TECHNICAL INFORMATION

<b>Abrasion Resistance</b>	Passed, 3,000 L sand	(Fed. Spec. TT-P-141B)									
<b>Surface hardness</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">7 days</td> <td style="width: 30%;">35</td> <td style="width: 40%;">(Fed. Spec. TT-P-0035</td> </tr> <tr> <td>14 days</td> <td>47</td> <td>(para 4.4.9))</td> </tr> <tr> <td>21 days</td> <td>52</td> <td></td> </tr> </table>	7 days	35	(Fed. Spec. TT-P-0035	14 days	47	(para 4.4.9))	21 days	52		
7 days	35	(Fed. Spec. TT-P-0035									
14 days	47	(para 4.4.9))									
21 days	52										
Tested with Barber Colemen Impessor tested with Requirement min = 30, max = 60											
<b>Impact Strength</b>	No chipping(gardener impact tester)	(Fed. Spec. TT-P-0035 (Cement paints para. 3.4.8))									
<b>Compressive Strength</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">7 days</td> <td style="width: 30%;">4,200 psi (29 MPa)</td> <td style="width: 40%;">(ASTM C 109)</td> </tr> <tr> <td>28 days</td> <td>6,030 psi (42 MPa)</td> <td></td> </tr> </table>	7 days	4,200 psi (29 MPa)	(ASTM C 109)	28 days	6,030 psi (42 MPa)					
7 days	4,200 psi (29 MPa)	(ASTM C 109)									
28 days	6,030 psi (42 MPa)										
<b>Modulus of Elasticity in Compression</b>	28 days	2.72 x 10 <sup>6</sup> psi (1.87 x 10 <sup>4</sup> MPa) (ASTM C 469)									
<b>Flexural Strength</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">7 days</td> <td style="width: 30%;">360 psi (2.5 MPa)</td> <td style="width: 40%;">(ASTM C 348)</td> </tr> <tr> <td>28 days</td> <td>1,027 psi (7 MPa)</td> <td></td> </tr> </table>	7 days	360 psi (2.5 MPa)	(ASTM C 348)	28 days	1,027 psi (7 MPa)					
7 days	360 psi (2.5 MPa)	(ASTM C 348)									
28 days	1,027 psi (7 MPa)										
<b>Tensile Strength</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">7 days</td> <td style="width: 30%;">250 psi (2 MPa)</td> <td style="width: 40%;">(ASTM C 190)</td> </tr> <tr> <td>28 days</td> <td>440 psi (3 MPa)</td> <td></td> </tr> </table>	7 days	250 psi (2 MPa)	(ASTM C 190)	28 days	440 psi (3 MPa)					
7 days	250 psi (2 MPa)	(ASTM C 190)									
28 days	440 psi (3 MPa)										
<b>Tensile Adhesion Strength</b>	418 psi (2.9 MPa)	(Test by tensile bond)									
<b>Coefficient of Thermal Expansion</b>	6.99 x 10 <sup>-6</sup> in/in/°F (5 x 10 <sup>-7</sup> mm/mm/°C) at 28 days	(ASTM C 531)									
<b>Water Absorption</b>	3.6% after boiling water submersion at 24 hours	(ASTM C 67 (Section 7.3))									
<b>Resistance to wind-driven rain</b>	8 hrs = excellent	(Fed. Spec. TT-P-0035 (Para 4.4.7))									
<b>Water Penetration under Pressure</b>	<b>Positive resistance to hydrostatic pressure</b> 752 hrs at 200 psi (1.4 MPa), No leakage, no softening 461 head ft, air-cured at 70 °F (21 °C), 50% rh	(CRD C 48, modified)									
<b>Water Penetration under Negative Pressure</b>	<b>Negative resistance to hydrostatic pressure</b> 664 hrs at 200 psi (1.4 MPa), Limited dampness 461 head ft, air-cured at 70 °F (21 °C), 50% rh	(CRD C 48, modified)									

<b>Permeability to Water Vapor</b>	12 perms (0.10698 metric permeability) $18 \times 10^3$ resistance	(ASTM E 96 (water-vapor transmission) Swedish standard SS-02-15-82)
<b>Permeability to CO<sub>2</sub></b>	1/16 in (1.6 mm), Equivalent to 3/4" (19 mm) new concrete	(Lab Method Diffusion)
<b>Microbiological Resistance</b>	<b>Fungus resistance</b> No growth; meets all requirements at 21 days	(Fed. Spec. TT-P-29B)
<b>UV Exposure</b>	Xenon arc, 5,000 hrs = no failure Carbon Arc, 500 hrs = no failure	(ASTM G 26) (ASTM G 23)
<b>Behavior after Artificial Weathering</b>	500 hrs, no cracking, loss of adhesion, checking, or other defect	(Atlas Type DMC weatherometer)
<b>Light fastness of colour pigments</b>	<b>Standard Reflectance</b> <u>Gray Sika Thoroseal®-581</u> 64.2 <u>White Sika Thoroseal®-581</u> 88.1	(ASTM D 2244 using Hunterlab D-25 meter)
<b>Freeze-Thaw Stability</b>	No change after 200 cycles	(ASTM C 666 (Procedure B))
<b>Salt resistance</b>	No defect after 300 hours	(ASTM B 117)
<b>Design Considerations</b>	Flame spread BS476: Part 7:1971 Water Penetration ASTM E 514 Adhesion ASTM C 297 Sika Thoroseal®-581/CMU Sika Thoroseal®-581/concrete Stuccobase /Sika Thoroseal®-581 ASTM C 926 Stucco/Sika Thoroseal®-581 Shear bond ANSI 118.4 or similar StuccoBase/Sika Thoroseal®-581/CMU StuccoBase/Sika Thoroseal®-581/concrete	

## APPLICATION INFORMATION

<b>Coverage</b>	▪ 225 ft <sup>2</sup> /50 lbs (20.9 m <sup>2</sup> /22.7 kg) bag as a base coat at 1/16" (1.6 mm) dry-film thickness. ▪ 450 ft <sup>2</sup> /50 lbs (41.8 m <sup>2</sup> /22.7 kg) bag as a topcoat at 1/32" (0.8 mm) dry-film thickness. Coverage will vary depending on surface texture and porosity.
<b>Set Time</b>	10 min at 70 °F (21 °C), 50% rh (lab method)
<b>Final set time</b>	90 min at 70 °F (21 °C), 50% rh (Lab Method)

## 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.

## 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

- Sika Thoroseal®-581 must be modified with Sika Thoroseal® Acryl 60 to achieve the properties listed in the technical data section.
- Do not apply to substrates with active water leaks or moving cracks; patch all leaking static cracks and holes with SikaSet® Waterplug. Repair any other nonmoving

cracks or voids with the appropriate Sika repair product and repair all moving cracks or voids with the appropriate sealant.

- Do not apply in rain or when rain is expected within 24 hours. Do not apply above 90 °F (32 °C) or below 40 °F (4 °C) or when temperatures are expected to fall below 40 °F (4 °C) within 24 hours. For hot and cold temperature applications, store Sika Thoroseal®-581, Sika Thoroseal® Acryl 60, and water at 50 °F (10 °C) to 70 °F (21 °C) before use.
- Hot substrates will affect working time and material strength.
- Variations between inside and outside temperatures may result in condensation on below-grade walls treated with Sika Thoroseal®-581. This can be alleviated by assuring that adequate ventilation exists.
- Windy, dry, or hot conditions may require rewetting of Sika Thoroseal®-581 during cure and the use of polyethylene barriers.
- Before specifying Sika Thoroseal®-581 for water retaining structures, conduct tests to determine water quality. Sika Thoroseal®-581 is not intended for continuous contact with acid or sulfate-containing water. Very soft water will have an adverse effect on Sika Thoroseal®-581.
- Service temperatures: immersion, up to 140 °F (60 °C); cleaning water, up to 200 °F (93 °C); dry air, up to 220 °F (104 °C).
- On all projects, it is recommended that a sample be prepared on-site and approved prior to the commencement of the work. The site sample should confirm the color, texture, and workmanship required until the job is finished and accepted. Retain the sample until final approval is secured.
- Allow Sika Thoroseal®-581 to cure for 7–10 days before immersion in water.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

## SURFACE PREPARATION

1. Surface preparation is extremely important for proper adhesion. Substrates must be sound and free of dust, dirt, laitance, paints, oils, grease, curing compounds, or any other contaminants. Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 3–14 days. If efflorescence is present, mechanically remove it before proceeding. For extreme cases where this is not adequate, contact Technical Service.
2. Patch all holes and non-moving cracks before installation with the appropriate Sika product.
3. Relieve hydrostatic pressure in concrete block with weep holes.
4. Roughen or brush blast extremely smooth surfaces such as precast and cast-in-place concrete to ensure good mechanical adhesion of Sika Thoroseal®-581.
5. Completely saturate the substrate with water and allow the surface to dry before the application starts. A damp surface will prevent surface drag on the

material, keep the substrate cool, and eliminate flash drying.

## MIXING

1. Mix Sika Thoroseal®-581 with a mixing liquid consisting of a blend of Sika Thoroseal® Acryl 60 diluted with water. The maximum dilution ratio is one part Sika Thoroseal® Acryl 60 (1½ quarts) to three parts water (4½ quarts). Approximately 6 quarts of mixing liquid is needed per 50 lbs of Sika Thoroseal®-581 powder. Up to 2 additional quarts of mixing liquid may be added when used as a rubbing compound.
2. For best results, mechanically mix Sika Thoroseal®-581 with a slow-speed drill and mixing paddle. Gradually add the powder to the mixing liquid while the drill is running.
3. When properly blended, Sika Thoroseal®-581 will have the lump-free consistency of smooth, heavy batter.
4. Allow the Sika Thoroseal®-581 and Sika Thoroseal® Acryl 60 mixture to rest undisturbed for a minimum of 10 minutes to fully wet out all the powder. Then mix the wet mixture and apply. A small amount of mixing liquid can be added to the mixture.
5. Pot life is 60–90 minutes at 70 °F (21 °C). At high temperatures and low relative humidity, pot life can be significantly less.

## APPLICATION

1. Apply Sika Thoroseal®-581 with a tampico brush or broom or equivalent stiff fiber brush or textured spray equipment. Spray applications of the first coat require back brushing or brooming to properly fill voids and achieve uniformity and optimum adhesion.
2. It is essential to work the first coat thoroughly into the substrate to completely fill and cover all voids, holes, and nonmoving cracks. Finish with a horizontal stroke for an even coat.
3. Allow to cure for 24 hours, then apply the second coat and finish with a vertical stroke. Above grade, the second coat can be replaced with a Sika high-build architectural coating to achieve better color uniformity.
4. On block or masonry walls, allow 5–7 days before applying a second coat to eliminate joint read-through or shadowing.
1. Sika Thoroseal®-581 shall be applied to CMU or concrete substrates in accordance with and prepared per Sika Thoroseal®-581 Technical Guide.
2. Mix Sika Thoroseal®-581 with a mixing liquid consisting of a blend of Sika Thoroseal® Acryl 60 diluted with water. The dilution ratio is one part Sika Thoroseal® Acryl 60 to three parts water.
3. Apply Sika Thoroseal®-581 at standard recommended thicknesses with a stiff fiber brush using a two-coat application. Allow the first coat to cure for 24 hours and then apply a second coat perpendicular to the first coat.
4. Allow Sika Thoroseal®-581 to cure and then directly apply Sika Stuccobase per manufacturer specifications or Portland Cement Plaster (Stucco) per

ASTM C 926. Nominal thickness shall be 5/8".

## APPLICATION METHOD / TOOLS

Above-grade interior or exterior applications in positive pressure situations (direct contact with rain or standing water with a low head of pressure)

1. A 50 lb (22.7 kg) bag of Sika Thoroseal®-581 will provide the following coverage at the designated material usage.
2. Recommended Coverage:
  - First Coat: 2 lbs/yd<sup>2</sup> (1.1 kg/m<sup>2</sup>) = 225 ft<sup>2</sup>/50 lb bag (20.9 m<sup>2</sup>/22.7 kg bag)
  - Second Coat: 1 lb/yd<sup>2</sup> (0.54 kg/m<sup>2</sup>) = 450 ft<sup>2</sup>/50 lb bag (41.8 m<sup>2</sup>/22.7 kg bag)
  - Total: 3 lbs/yd<sup>2</sup> (1.6 kg/m<sup>2</sup>), cured nominal thickness of 1/16" (1.6 mm). Coverage will vary depending on surface texture and porosity.
1. A 3 lbs/yd<sup>2</sup> (1.6 kg/m<sup>2</sup>) application rate does not eliminate surface irregularities such as struck mortar joints. To hide surface irregularities, spray and back-brush a base coat of Sika Thoroseal®-581 at 2 lbs/yd<sup>2</sup> (1.1 kg/m<sup>2</sup>) and allow it to cure for 5–7 days. If additional leveling is required use Sika Thoroseal®-581 Plaster Mix.

### Below-grade Interior Applications

1. The standard application is 3 lbs/yd<sup>2</sup> (1.6 kg/m<sup>2</sup>).
2. For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), increase the application rate to 4 lbs/yd<sup>2</sup> (2.2 kg/m<sup>2</sup>) and waterproof from the positive side wherever possible.

### Below-grade Exterior Applications

1. Use Sika Thoroseal®-582 F (see Form No. 1019907) For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), apply a base coat of Sika Thoroseal®-582 F at 2 lbs/yd<sup>2</sup> (1.1 kg/m<sup>2</sup>) and allow to cure for 5–7 days.
2. Then apply Sika Thoroseal®-581 at 2 lbs/yd<sup>2</sup> (1.1 kg/m<sup>2</sup>). If additional leveling is required use Sika Thoroseal®-581 Plaster Mix. A steel trowel finish is recommended.
3. For both below-grade interior and below-grade exterior applications where water might move between vertical walls and slab or footer, it is recommended to cut out and place a SikaSet® Waterplug cove at the wall and floor junction prior to the application of the Sika Thoroseal®-581 base coat.
4. Sika Thoroseal®-581 can be covered with an extruded polystyrene insulation board during the second coat application. The board must be fully coated with Sika Thoroseal®-581 and embedded into the still-wet coating already in place on the walls. Use care when placing the coated board because it should not be moved or slipped. Once placed, do not move the

board. After curing, prepare the above-grade portions of the boards by roughening or removing the surface skin and then coating them with Sika Thoroseal®-581 to protect them from UV light degradation.

### Waterproofing Potable Water Tanks or Reservoirs

1. Install Sika Thoroseal®-581 as directed in the general Application instructions.
2. After Sika Thoroseal®-581 has fully cured, wash down the Sika Thoroseal®-581 surface with saline solution (salt brine, 1 lb salt per 1 gallon water).
3. Leave the saline solution on the entire Sika Thoroseal®-581 surface for at least 24 hours.
4. Rinse off the saline solution completely. If needed, reapply the saline solution until the final rinse water is completely clean and clear.

## CLEANING OF TOOLS

Promptly clean hands and all tools with warm water while the product is still wet. Cured material may only be removed mechanically.

## 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](http://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.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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MERCHANTABILITY OR FITNESS FOR A PARTICULAR  
PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL  
THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.  
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SikaThoroseal-581-en-US-(09-2024)-2-1.pdf

**Product Data Sheet**  
Sika Thoroseal®-581  
September 2024, Version 02.01  
020701010010000422

# PRODUCT DATA SHEET

## Sikalastic®-100 VB

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TWO-COMPONENT, 100% SOLIDS, VAPOR-BLOCKING EPOXY PRIMER

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### PRODUCT DESCRIPTION

Sikalastic®-100 VB is a two-component, solvent-free, low viscosity, 100% solids, vapor-blocking epoxy primer for use under Sika's Waterproofing & Traffic Systems that require protection from high moisture content concrete.

### USES

- Moisture barrier to help control moisture propagation in concrete substrates with up to 100 % R.H. or 25 lb/1,000 ft<sup>2</sup>/24 h (11.4kg/92.9m<sup>2</sup>/24 h)
- For use under Sika's Waterproofing & Traffic Systems as a moisture barrier primer on concrete surfaces including on-grade concrete, non-vented concrete/steel pan composite decks and split-slab applications with encapsulated waterproofing.
- Can be used as a moisture tolerant primer on applications over elevated concrete slabs.

### CHARACTERISTICS / ADVANTAGES

- Vapor-blocking primer for high moisture concrete
- Low Viscosity, high surface penetration
- Fills concrete capillaries well below surface
- Lightly pigmented to show coverage
- 100% Solids, Solvent-free epoxy
- Low VOC

### PRODUCT INFORMATION

<b>Packaging</b>	4 gal. kit (3 gal. A, 1 gal. B)	
<b>Shelf Life</b>	12 months in original, unopened containers	
<b>Storage Conditions</b>	Store dry at 50–77 °F (10–25 °C)	
<b>Color</b>	Blue	
<b>Viscosity</b>	250 cps	
<b>Volatile organic compound (VOC) content</b>	See Product Safety Data Sheet	
<b>Shore D Hardness</b>	83	(ASTM D-2240) at 7 days 73 °F (23 °C) 50 % R.H
<b>Service Temperature</b>	-40°F–158°F (-40°C–70°C)	

## APPLICATION INFORMATION

<b>Coverage</b>	160 ft <sup>2</sup> /gal per coat*	
*Two coats required. Coverage is theoretical, proper application includes a visual inspection.		
<b>Ambient Air Temperature</b>	min. 41 °F / max. 95 °F	
<b>Substrate Temperature</b>	min. 41 °F / max. 95 °F	
<b>Pot Life</b>	<b>Temperature</b>	<b>Working Time</b>
	50 °F (10 °C)	approx. 60 minutes
	68 °F (20 °C)	approx. 30 minutes
	86 °F (30 °C)	approx. 15 minutes
<b>Cure Time</b>	<b>Temperature</b>	<b>Cure Time</b>
	50 °F (10 °C)	18 hours
	73 °F (23 °C)	8 hours
	86 °F (30 °C)	6 hours
<b>Waiting / Recoat Times</b>	Up to 36 hours If Sikalastic®-100 VB is not overcoated within 36 hours, the coating must be abraded and solvent wiped followed by an additional coat of Sikalastic®-100 VB before proceeding.	

## 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

- To avoid dew point conditions and prolonged cure during application, relative humidity must be no more than 85 % and substrate temperature must be at least 5 °F (3 °C) above measured dew point temperatures.
- Minimum ambient and substrate temperature during application and curing of material is 41 °F (5 °C); maximum is 95 °F (35 °C). Frequent monitoring of ambient and substrate temperature should always be done when applying epoxy primers. Note that low temperatures will slow down the cure, and high temperatures will accelerate it.
- Will not prevent hydrostatic pressure
- Do not thin with solvents
- Do not store materials outdoors exposed to sunlight and moisture for prolonged periods
- Primer is not UV stable and must be topcoated.
- Do not spray apply Sikalastic®-100 VB
- On substrates likely to exhibit outgassing apply during falling ambient and substrate temperature. If applied during rising temperature pinholing may occur.
- **MUST** produce a monolithic, pinhole-free finish with a continuous film with no surface imperfections showing through.
- 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 and/or prevent the ability to achieve a mirror-like finish.

## 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 PREPARATION

Surface must be clean, sound, and dry. Remove dust, laitance, grease, curing compounds, bond inhibiting impregnations, waxes, and any other contaminants. All projections, rough spots, etc. should be dressed off to achieve a level surface prior to the application.

**Concrete** - Should be cleaned and prepared to achieve a laitance and contaminant-free, open textured surface by blast cleaning or equivalent mechanical means (CSP-3-4 per ICRI guidelines). Vacuum any remaining dirt and dust. Removing residual dust will help ensure a tenacious bond between the primer and substrate.

**Moisture Testing** - Moisture testing is required prior to all applications of Sikalastic®-100 VB. The following moisture testing is required;

- Tramex Concrete Moisture Encounter Meter [ASTM F2659] - Require 6% or less moisture content, showing

### Product Data Sheet

Sikalastic®-100 VB

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the top-level slab moisture will not prevent a tenacious bond between Sikalastic®-100 VB and concrete.

- **Plastic Sheet Method [ASTM D4263]** - To determine if vapor drive on concrete slab is a factor. If moisture develops on the underside of the plastic sheet then Sikalastic®-100 VB should not be applied until a successful plastic sheet test can be done.
- **R.H Testing [ASTM F2170]** - To determine actual concrete moisture and document prior to starting application.

## MIXING

Add one full can of component B to one full can of component A, then mix with an electric drill and Jiffy style paddle at a low speed to reduce air entrainment (300–400 rpm). Scrape the sides of the container, Mix the combined material thoroughly for 3 minutes until a homogenous mixture and uniform color is obtained. Use care to prevent whipping air into the material while mixing - use a slow and methodical mixing approach. Do not turn over pails to get all resin on sidewalls out of pail, this will result in uncured rings.

## APPLICATION

### Applications as Moisture Tolerant Primer

Measure moisture content of concrete substrate by weight with a Tramex CME concrete moisture meter; when less than 5 % apply one coat of Sikalastic®-100 VB; when greater than 5% and less than 6 % apply two coats of Sikalastic®-100 VB. Apply primer by 1/8" squeegee at the rate of 160–200 ft<sup>2</sup> / US gal at 8–10 mils wet film thickness and back roll with a phenolic resin core roller with pressure. Coverage will vary depending on the porosity of the prepared substrate. If moisture content requires, apply a second primer coat by squeegee at the rate of 160–200 ft<sup>2</sup> / US gal at 8–10 mils wet film thickness and back roll with pressure after the first primer coat is tack free, which is typically after 8 hours at 68 °F (20 °C). Do not apply by dipping roller into mixing container. Pour a bead of product in the form of a ribbon on the substrate to be coated and then spread with squeegee and back roll. Ensure that the second coating is pore-free and pinhole-free and provides uniform and complete coverage over the entire concrete substrate.

### Applications as Moisture Barrier Primer

Sikalastic®-100 VB requires two coats for all applications. Apply Sikalastic®-100 VB uniformly to the substrate using a squeegee or medium nap roller, then backroll in two directions: one perpendicular to the other. Pour

entire contents of pail onto the floor for best working time. Apply first coat at 160 sf/gal at 10 mils over the entire application area. Apply the second coat and ensure that a continuous coat is achieved over the entire surface **MUST produce a mirror-like finish**. A mirror-like finish is defined by no substrate imperfections showing through Sikalastic®-100 VB, monolithic and pinhole-free, feeling glass smooth to the touch. If a mirror-like finish is not achieved, an additional coat of Sikalastic®-100 VB must be applied to achieve proper performance.

Sikalastic®-100 VB can be overcoated once tack free, typically 8 hours at 73°F 50% R.H. Sikalastic®-100 VB must be overcoated within 36 hours after application. If Sikalastic®-100 VB is left exposed longer than 36 hours the surface must be mechanically prepared (i.e. sanding, grinding) and solvent wiped before an additional coat of Sikalastic®-100 VB before proceeding.

## CLEANING OF TOOLS

Remove wet primer with locally-approved solvent and/or dry cloth. Once cured, primer can only be removed by mechanical means. Strictly follow solvent manufacturer's warnings and instructions for use.

## 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](http://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.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product

Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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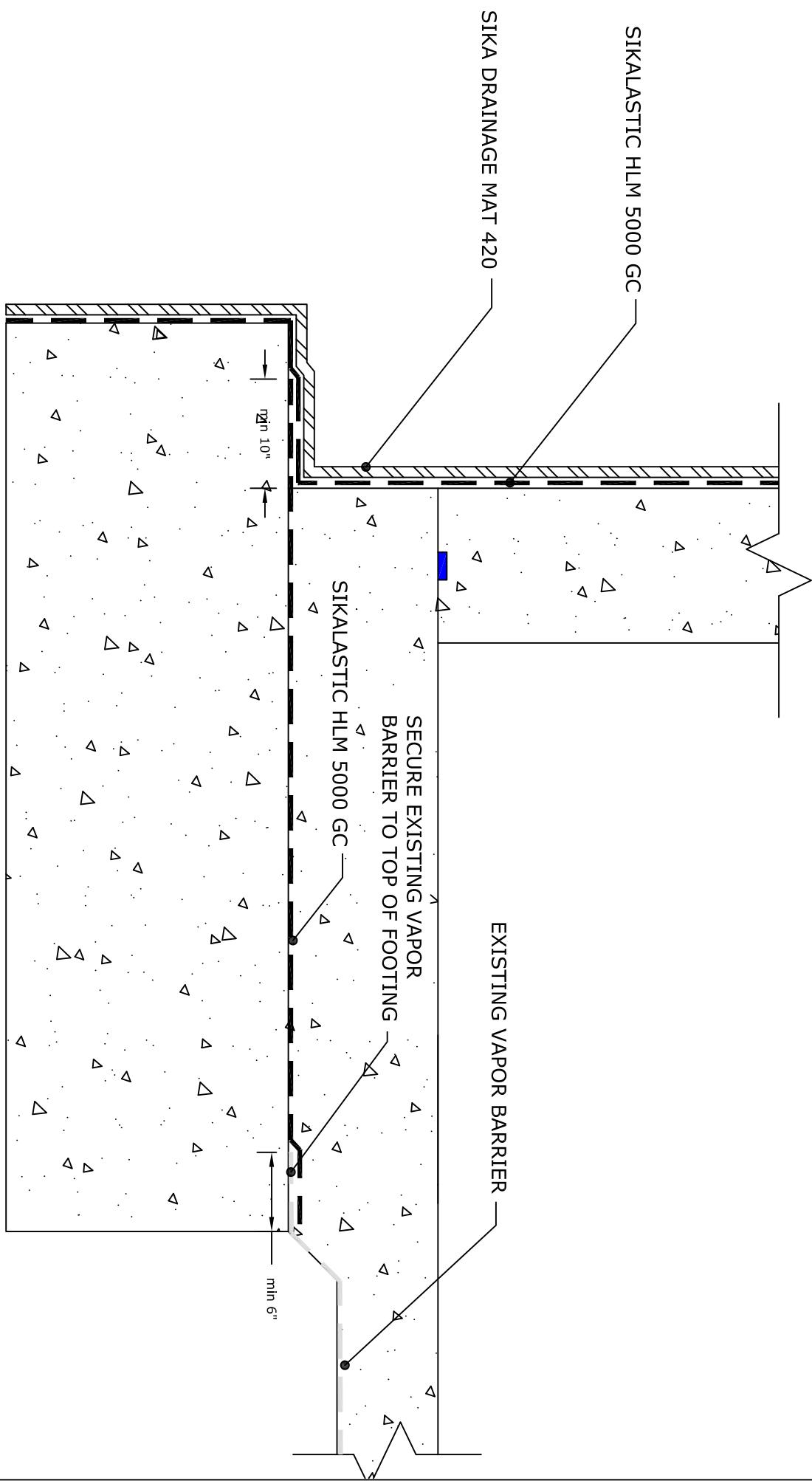
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