

## PRODUCT DATA SHEET

# Vapor Retarder SA 31

Self-adhesive vapor retarder/air barrier

### PRODUCT DESCRIPTION

Vapor Retarder SA 31 is a 31 mil (0.8 mm) thick self-adhesive vapor retarder/air barrier for use within Sarnafil® and Sikaplan® insulated roofing systems. Vapor Retarder SA 31 can also serve as temporary roof protection in areas limited to light construction traffic. It can be left exposed for up to two (2) months.

### USES

- Vapor retarder/air barrier within Sarnafil and Sikaplan insulated roofing systems
- Temporary roof protection in areas limited to light construction traffic

### AREAS OF APPLICATION

- Direct application to steel, concrete, gypsum decks, approved gypsum boards, and plywood

### CHARACTERISTICS / ADVANTAGES

- Roll width specifically designed to allow the side lap to align with the top flutes of most structural steel decks, reducing waste and maximizing coverage
- Polyethylene facer accepts approved urethane adhesives for insulation attachment

### APPROVALS / STANDARDS

- FM Global
- Underwriters Laboratories
- Meets 2012 IECC Air Barrier requirements, Materials (Section C402.4.1.2.1)

## PRODUCT INFORMATION

<b>Chemical Base</b>	Self-adhesive SBS modified bitumen with a tri-laminated woven polyethylene facer. The self-adhesive back side is covered by a release liner.
<b>Packaging</b>	44.8" (1.14 m) x 133.8 ft (40.8 m) roll, 81 lbs (37 kg) per roll 25 rolls per pallet
<b>Shelf Life</b>	N/A
<b>Storage Conditions</b>	Rolls must be stored upright with the selvedge side of the roll up. If the rolls are stored outdoors, cover them with an opaque protective cover after removal of the delivery packaging.
<b>Effective Thickness</b>	31 mil (0.8 mm) (ASTM D-5147)

## TECHNICAL INFORMATION

<b>Resistance to Dynamic Puncture</b>	152 lbf (675 N) (ASTM E-154)
<b>Tensile Strength</b>	<b>Machine Direction</b> 54 lbf/in (9.5 kN/m) <b>Cross Machine Direction</b> 68 lbf/in (12 kN/m) (ASTM D-5147)
<b>Elongation at Break</b>	<b>Machine Direction</b> 33% <b>Cross Machine Direction</b> 20% (ASTM D-5147)
<b>Tear Strength</b>	<b>Machine Direction</b> 90 lbf/in (400 kN/m) <b>Cross Machine Direction</b> 79 lbf/in (350 kN/m) (ASTM D-1970)
<b>Seam Strength</b>	41 lbf/ft (600 N/m) (ASTM D-1876)
<b>Water Vapor Transmission</b>	0.018 perm (1.04 ng/(Pa·s·m <sup>2</sup> )) (ASTM E-96) Procedure C, Desiccant Method
<b>Adhesion in peel</b>	5.4 lbf/in (950 N/m) (ASTM D-903)
<b>Water Absorption</b>	0.1% max. (ASTM D-5147)
<b>Permeability to air</b>	<0.000012 L/(Pa·m <sup>2</sup> ·s) (ASTM E-2178)
<b>Low Temperature Bend</b>	-35°F (-30°C) (ASTM D-5147)
<b>Air flow rate</b>	<0.00006 cfm/ft <sup>2</sup> (<0.0003 L/(s·m <sup>2</sup> )) (ASTM E-2178)

## 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.

## AVAILABILITY/WARRANTY

### AVAILABILITY

From Sika Corporation – Roofing Authorized Applicators for use within Sarnafil or Sikaplan systems.

### WARRANTY

Upon successful completion of the installed roof by the Sika Authorized Applicator in compliance with Sika requirements, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator.

## LIMITATIONS

- Install Vapor Retarder SA 31 in temperatures 14°F (-10°C) and above.
- Do not install Vapor Retarder SA 31 when it is raining, snowing, or on wet/humid surfaces.
- Not intended to perform under ponding water conditions. Positive drainage is required.
- Protect Vapor Retarder SA 31 from potential damage caused by construction traffic and other jobsite activities.

- Do not apply hot asphalt over Vapor Retarder SA 31.

## 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

All surfaces must be clean, sound, dry, and free of loose materials or contaminants such as water, frost, ice, oil and grease that would interfere with proper adhesion and compromise the performance of the product.

In accordance with the ICRI Technical Guideline No. 310.2R-2013, newly poured concrete surfaces must be finished by forming, wood float, steel or power trowel, or broom finished to meet a CSP of 2 – 5.

Application to all substrates except steel require priming with Vapor Retarder Primer SB, Vapor Retarder Primer VC or Vapor Retarder Primer WB. See Vapor Retarder Primer SB, Vapor Retarder Primer VC or Vapor Retarder Primer WB product data sheets for additional information.

### APPLICATION

Begin the installation at the low point of the roof. Unroll Vapor Retarder SA 31 onto the substrate for alignment. Overlap each sheet by 3" (7.6 cm) on the side lap and 6" (15.2 cm) on the end laps. Priming laps may be required at cold temperatures.

Once the roll is aligned, peel back a portion of the release liner and press Vapor Retarder SA 31 onto the substrate. When securely adhered, remove the remaining release liner from the roll.

On steel decks install a 6" x 42" (15.2 cm x 1.1 m) metal plate under the end lap to support the membrane between the steel flutes. Stagger the end laps by at least 12" (30.5 cm).

Use a minimum 75 lb (34 kg) steel roller to press the Vapor Retarder SA 31 onto the substrate including the laps. Use the roller to push out any air bubbles out to the edge of the membrane. Do not cut the membrane to remove a bubble.

Apply Sika's Mastic to seal around penetrations, T-joints,

90° angle transitions, fishmouths or other openings. Use a trowel to mound Sika's Mastic around the penetrations to seal the opening. Do not apply Sika's Mastic where it may come into direct contact with the Sarnafil or Sikaplan membrane.

## MAINTENANCE

Standard maintenance of Sarnafil or Sikaplan systems should include inspections of flashings, drains, and termination sealants at least twice a year and after each storm.

## 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.

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