

## PRODUCT DATA SHEET

# SikaMembran<sup>®</sup>-540

### Self-Adhesive Air / Vapor Barrier

#### PRODUCT DESCRIPTION

SikaMembran<sup>®</sup>-540 is a self-adhering sheet membrane consisting of an engineered block-copolymer adhesive on a durable, conformable polypropylene film. The membrane is designed to be adhered to a variety of substrates and is available in rolls of various widths which may be used for full wall applications or as a penetration/flashing membrane used with other Sika air barrier systems.

#### USES

SikaMembran<sup>®</sup>-540 is designed to be used in above-grade wall assemblies including concrete, concrete masonry units (CMU), plywood, OSB and exterior gypsum sheathing. Other applications include transition tape application for door, window and other openings and to connect the air barrier to the door, window or other penetration.

#### CHARACTERISTICS / ADVANTAGES

- Fully bonded
- Waterproof and airtight
- Excellent adhesion to a variety of substrates
- Compatible with Sikagard liquid air barriers
- Tough film that resists punctures and tears
- Conforms to irregular surfaces
- Passes E 2178

#### PRODUCT INFORMATION

<b>Packaging</b>	36" width by 75 ft. roll, 1 roll per box 18" width by 75 ft. roll, 2 rolls per box 12" width by 75 ft. roll, 3 rolls per box 6" width by 75 ft. roll, 6 rolls per box 4" width by 75 ft. roll, 9 rolls per box
<b>Shelf Life</b>	1 year in original packaging at recommended storage conditions
<b>Storage Conditions</b>	Store pallets under cover at temperatures between 40 °F and 100 °F
<b>Thickness</b>	8 mils

## TECHNICAL INFORMATION

<b>Tensile Strength</b>	2,000 psi	(ASTM D-882) 20 lbf/in. (break factor)
<b>Elongation at Break</b>	400 %	(ASTM D-882)
<b>Adhesion in Peel</b>	<b>Adhesion in Peel</b> Concrete = 5.5 lbf/in. Fiberglass Sheathing = 6.0 lbf/in.	(ASTM D-903)
	<b>Lap Adhesion</b> Concrete = 2.0 lbf/in. Fiberglass Sheathing = 2.5 lbf/in.	(ASTM D-3330)
	7.0 lb/in.	(ASTM D-1876)
<b>Tear Propagation Resistance</b>	20 lbf	(ASTM D-4073)
<b>Tensile Adhesion Strength</b>	Fiberglass Sheathing = 16 lbf/in.	(ASTM D-4541)
<b>Crack Bridging Ability</b>	pass	(ASTM 1305)
<b>Resistance to Environmental Stress Cracking</b>	pass	(ASTM D-1970)
<b>Resistance to Static Puncture</b>	> 40 lbf	(ASTM E-154)
<b>UV Exposure</b>	Cover within 60 days	
<b>Permeability to Air</b>	pass (<0.001 cfm)	(ASTM E-2178)
<b>Water Vapor Transmission</b>	Method A (desiccant) = 0.09 perms Method B (water) = 0.13 perms	(ASTM E-96)
<b>Resistance to Water Penetration</b>	pass	(AATCC 127)
<b>Self Sealability</b>	pass	(ASTM D-1970)
<b>Service Temperature</b>	min. -20 °F max. 150 °F	

## APPLICATION INFORMATION

<b>Ambient Air Temperature</b>	min. 40 °F and rising
<b>Substrate Temperature</b>	min. 40 °F and rising

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

Acceptable substrates include concrete, concrete masonry units, primed steel, aluminum, mill finish, anodized aluminum, galvanized metal, exterior gypsum board and wood. Primer may be required for CMU or if adhesion is inadequate on substrates due to surface conditions beyond the control of the installer. Sika® Latex R may be used for priming if required. Surfaces must be sound, clean, dry and free of frost, dirt, dust, loose concrete, grease, oil, contaminants or other

foreign matter that may adversely affect the adhesion of the membrane. Surfaces should be free of voids, gaps, breaks and spalls. New concrete should cure a minimum of 7 days, masonry mortar joints should be full and flush, holes or cracks greater than ¼" should be filled in with an appropriate mortar if static or with a suitable sealant or filler if required to move. Gypsum, plywood and OSB sheathing boards shall be properly fastened, flush at the joints with gaps according to building codes and sheathing board manufacturer. Moisture content should be checked using a Tramex® moisture meter with a 4 % maximum allowable measurement.

## APPLICATION METHOD / TOOLS

Horizontal applications should start at the bottom and proceed upward, offset vertical seams 12". Vertical applications should start at the top and unroll the membrane down the wall, offset horizontal seams 12". Lap at all seams should be 2". Sequence the installation, including detailing at wall openings such as windows and doors, to provide a continuous install with shingled laps.

Cut membrane to a manageable length and position for alignment. Remove protective film and press firmly into place avoiding wrinkles and air pockets. Go over recently installed sheet with a hand roller in order to ensure continuous and intimate contact with the substrate.

For masonry ties and anchors use the 18" wide sheet. Run the upper edge of the membrane along the underside of the tie or anchor. Working up the wall, install the next sheet in a similar manner. The 18" membrane will overlap the membrane below by 2" and will require a slot or cut at each tie or anchor at the bottom of the sheet in order to be fully laid in place. Seal the penetration using Sikaflex® 11fc.

Seal leading edges susceptible to moisture ingress such as non water leading edges and edges resulting from partially completed walls at the end of a day, with Sikaflex® 11fc.

Coordinate installation with the roofing trade to ensure continuity between the roof and air barrier systems.

Protect membrane from damage and do not cover until inspected according to the project requirements. Make repairs to the membrane using SikaMembran®-540. Extend beyond the damage by at least 3". Seal the edges of the patch with Sikaflex® 11fc.

Adhesion tests should be carried out before the project install commences and should be checked periodically at least once per day on each substrate type throughout the project installation to verify proper adhesion and application.

## LIMITATIONS

- SikaMembran®-540 is a vapor barrier. Design professional shall determine appropriate use in project wall assemblies.
- Maximum permitted exposure is 60 days.
- Do not install on roofs.

## 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.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## 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.

## 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. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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