

PRODUCT DATA SHEET

SikaMembran[®]-540

SELF-ADHESIVE AIR / VAPOR BARRIER

PRODUCT DESCRIPTION

SikaMembran[®]-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[®]-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

Packaging	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
Shelf Life	1 year in original packaging at recommended storage conditions
Storage Conditions	Store pallets under cover at temperatures between 40 °F and 100 °F
Thickness	8 mils

TECHNICAL INFORMATION

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

APPLICATION INFORMATION

Ambient Air Temperature	min. 40 °F and rising
Substrate Temperature	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 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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Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537



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