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PRODUCT DATA SHEET Sikagard[®] AWB 660 I

Air/water-resistive barrier membrane Class 1 Vapor retarder

PRODUCT DESCRIPTION

Sikagard[®] AWB 660 I is a one-component fluid-applied air/water-resistive barrier that can also function as a Class I vapor retarder. This water-resistant, resilient membrane may be spray-, roller-, or brush- applied directly to approved above grade wall substrates. It provides excellent secondary moisture protection behind most wall claddings including brick, siding, metal panels, EIFS and stucco. A slip-sheet is required for stucco claddings.

USES

For use over the following exterior wall substrates: Poured concrete/unit masonry, poured concrete/unit masonry treated with ASTM C1177 type sheathings, including DensGlass[™] or DensElement exterior sheathing, eXP[™] sheathing, GlasRoc[®] sheathing, Securock[™] glass-mat sheathing, Weather Defense[™] Platinum sheathing, GreenGlass[®] sheathing, PermaBase[™] cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior), untreated Exposure I or exterior plywood sheathing (grade C-D or better), untreated Exposure I OSB, gypsum sheathing (ASTM C79/ASTM C1396), Fire resistive sheathing such as MagTec, LP FlameBlock. Do not use Sikagard[®] AWB 660 I for below-grade applications or on surfaces subject to water immersion

CHARACTERISTICS / ADVANTAGES

ABAA evaluatedApproved for projects requiring ABAA specifications and quality assurance<1% of allowable air leakage per ASTM E2357 Air Leakage of Building Assemblies testEasily meets air tightness requirements defined by ASHRAE 189.1, ASHRAE 90.1, and ABAAMeets ASTM D1970 nail sealability requirements with and without sheathing fabricSelf-sealing performanceOne component, low-VOC formulationEasy to apply, meets VOC requirements in all 50 statesNonflammable as applied Wineral oil and plasticizer- freeWorkplace safetyWater-basedCleans up with water; solvents and citrus-based cleaners are not required	Features	Benefits
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over time Water-based Cleans up with water; solvents and citrus-based cleaners are not required	free	due to loss of oil/plasticizer
Water-based Cleans up with water; solvents and citrus-based cleaners are not required		over time
solvents and citrus-based	Water-based	Cleans up with water;
cleaners are not required		solvents and citrus-based
		cleaners are not required
Tough, abrasion-resistant Rugged membrane resists	Tough, abrasion-resistant	Rugged membrane resists
damage after installation		damage after installation
180-day outdoor exposure Flexible construction	180-day outdoor exposure	Flexible construction
rating scheduling	rating	scheduling

APPROVALS / STANDARDS

ICC-ES AC 212: Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing

ICC-ES AC 148: Acceptance Criteria for Flexible Flashing

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PRODUCT INFORMATION

Packaging	Sikagard [®] AWB 660 I: 5-gallon pail (18.9 L)
Color	Reddish Brown
Shelf Life	Sikagard [®] AWB 660 I has a 2 year shelf life when properly stored
Storage Conditions	Store in unopened containers in a clean, dry place to protect liquid system components from freezing. Store at no less than 40 °F (4 °C) and below 120 °F (49 °C). Protect from extreme heat and direct sunlight. Do not stack pallets.
Solid content by mass	74%

TECHNICAL INFORMATION

Abrasion Resistance	Rugged membrane resists damage after installation
Tensile Strength	Tensile Strength after UV Exposure: All samples meet the minimum requirement of 3.5N/mm (20 lbs/in)(ASTM D 5034 AAMA 711
	Tensile Bond
	Tensile Bond: >103 kPa (15 psi) Tested over exterior(ASTM C 297)
	gypsum sheathing, ASTM C1177 glassmat sheathing,
	cement board, USB, plywood, CMU; pvc and galvanized
	Tensile Bond (Before and after freeze-thaw): >103 kPa (15
	psi) avg; no failure of the lamina after 10 cycles freeze-
	thaw
	(Tested over various substrates)
External Fire Performance	Radiant Heat Multi-Story Tests
	Passed using numerous wall assemblies. Engineering analyses are (NFP.
	available upon request. 285
Reaction to Fire	Class A Flame Spread (<25) (ASTM E 84
	Class A Smoke Developed Spread (<450)
UV Exposure	No cracking or bond failure to substrate (ICC-ES AC 212) and (ICC-ES AC 148
Artificial Ageing	No cracking or bond failure to substrate (ICC-ES AC 212) and (ICC-ES AC 148
Behavior after Artificial Weathering	Structural: No cracking at joints or interface of (ASTM E 1233 Procedur flashing A
	Racking: No cracking at joints or interface of flashing (ASTM E 72
	Restrained Environmental Conditioning:No cracking at joints or(ICC-ES Ainterface of flashing212
Permeability to Water Vapor	Water Vapour Transmission
	0.09 Perms (grains/Hr. in Hg. ft2) at 26 mils wet film (ASTM E 96 Metho
	thickness A
	0.18 Perms (grains/Hr. in Hg. ft2) at 10 mils wet film thickness
Water Penetration under Pressure	Nail Sealability(without Sheathing Fabric)

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	Pass - No water penetration at galvanized roofing nail penetration under 127 mm (5") head of water after 3 days a 40 °F (4 °C)		(ASTM D 1970) It
	Nail Sealability after Thermal (Cycling: Pass	(ASTM D 1970 (Modified), AAMA 711)
Adhesion in peel	Tested over ASTM C1177 glass-mat sheathing, OSB, plywood, PVC and uncoated aluminum After UV Exposure After Accelerated Aging After Elevated Temperature Exposure After Water Immersion	Pass Pass Pass Pass	(ASTM D3330 Method F)
	Resistance to Peeling No signs of distress or failure a temperature, 122 °F (50 °C), 1	after 24 hours of exposure at roc 49 °F (65 °C), 176 °F (80 °C)	om (AAMA 711)
Freeze-Thaw Stability	No sign of deleterious effects after 10 cycles (Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood)(ASTM E 2485 (Method B))		
Water resistance	No sign of deleterious effects after 14-day exposure (Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood)(ASTM D 2247)Hydrostatic Pressure: No water penetration at 55 cm (21.7") water column for 5 hours(AATCC 127- 1985)		
Water retention	Drainage Efficiency 99% (ASTM E 2273)		
Low Temperature Bend	No cracking after bending around a 25 mm (1") mandrel (ASTM D 1970, after 2 hour exposure to 0 °F (-18 °C) AAMA 711)		
Thermal resistance	Compound StabilityNo flowing, dripping, or drop formation up to 350 °F(ASTM D 5147 Section 15)		
Air permeance	Air Permeance of Building Mat 0.0049 l/s.m2 at 75 Pa (0.0009	terials 98 cfm/ft2 at 1.57 psf)	(ASTM E 2178)
Air leakage rate	0.0185 l/s·m ² at 75 Pa (0.0037	cfm/ft ² at 1.57 psf)	(ASTM E 283)
	0.0007 l/s.m ² (0.0001 cfm/ft ²) positive/post conditioning 0.0014 l/s.m ² (0.0003 cfm/ft ²) negative/post conditioning	at 75 Pa (1.57 psf) at 75 Pa (1.57 psf)	(ASTM E 2357)
Static air pressure difference	Water Penetration by Uniform Static Air Pressure DifferenceNo water penetration after 90 min at 299 Pa (6.24 psf) Tested over(ASTM EOSB and gypsum sheathing331)		
Compressive Strength	Will not add or detract from th assembly	ne rating of a fire-resistive wall	(ASTM E 119/UL 263)

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Coverage	ASTM C1177 Type: Sheathing:450 ft ² (41 m ²) per pail Cement Board:290 ft ² (27 m ²) per pail Plywood*:265 ft ² (24 m ²) per pail Oriented Strand Board (OSB): 265 ft ² (24 m ²) per pail Concrete Masonry Units (CMU)*: 230 ft ² (21 m ²) per pail Poured Concrete*:290 ft ² (27 m ²) per pail Concrete / Masonry with Sika Thorocoat® 749 Block Filler: 290 ft ² (27 m ²) per pail * Roll or spray/backroll for optimum coverage rate. Other application methods may provide less coverage. Actual results may vary depending on surface porosity, roughness, moisture uptake, or other factors.
Drying Time	40 °F (4 °C) and rising: allow to dry completely, typically 2-10 hours before proceeding with cladding installation. 40 °F (4 °C) down to 25 °F (-4 °C): when applied at a 10-mil wet film thickness, typically dry in approximately 12 hours at 32 °F (0 °C) and 50% relative humidity (RH). When applied at a 20-mil thickness (single pass spray), typically dry in approximately 18 hours at 32 °F (0 °C) and 50% (RH). Allow to dry completely prior to proceeding with cladding installation. Note: Actual drying time will vary depending on ambient and substrate temperature, humidity, and the ability of the substrate to absorb water. Final air/water-resistive properties and film durability rely on temperatures rising above freezing(32 °F/0 °C).

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

APPLICATION INSTRUCTIONS

EQUIPMENT

Use a 20 mm (3/4") nap roller or paint brush. If spraying, refer to Spray Application of apply Sikagard® AWB 660 I/ Sikagard® AWB 660/ Sikagard® AWB 665 technical bulletin for spray application equipment and application instructions.

Note: If using roller application, it is necessary to prewet the synthetic roller pad with water and spin out the excess water. The pre-wetting only needs to be done once at the start of application.

SUBSTRATE PREPARATION

The substrate shall be dry, clean, sound, and free of release agents, paint, or other residue or coatings. Verify that the substrate is flat, free of fins or planar irregularities greater than 6.4 mm in 3 m (1/4'' in 10').

Product Data Sheet Sikagard® AWB 660 I June 2025, Version 01.01 021890300000000030 Unsatisfactory conditions shall be reported to the general contractor and corrected before the application of Sikagard[®] AWB 660 I.

PRODUCT CONSIDERATIONS AND JOB CONDITIONS

- Cold temperature application less than 40 °F (4 °C) down to 25 °F (-4 °C): expect extended dry time. Final air/water-resistive properties and film durability rely on temperatures rising above freezing (32 °F/0 °C)
- Do not apply Sikagard[®] AWB 660 I in ambient temperatures below 25 °F (-4 °C) or onto substrates below 25 °F (-4 °C).
- Walls shall be capped to prevent moisture and precipitation from entering the wall during construction.
- Treat expansion joints with with Sikalastic[®] Tape AWB-970 NP or Sikagard-540 Plus flashing membrane, and provide sufficient slack in Sikalastic[®] Tape AWB-970 NP or Sikagard-540 Plus at the joint to allow for movement.

MIXING

- Use directly from original packaging or prepare in a container that is clean and free of foreign substances. Do not use a container that has contained or been cleaned with a petroleum-based product.
- Mix Sikagard[®] AWB 660 I with a clean, rust-free paddle and drill until thoroughly blended. Dilution of Sikagard[®] AWB 660 I is not recommended.

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3. Additives are not permitted.



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- 4. Close container when not in use.
- 5. Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

APPLICATION

- 1. The substrate shall be of a type acceptable by Sika and shall be installed per substrate manufacturer's instructions and local code requirements.
- 2. Apply Sikagard[®] AWB 660 I and/or apply Sikagard[®] AWB 900 Liquid Flashing Membrane to fasteners, sheathing joints, and rough openings as outlined in Sikagard[®] AWB Application Guidelines for Joint Treatment and Flashing Rough Openings on Framed Construction technical bulletin or apply Sikagard[®] AWB Application Guidelines for Flashing Rough Openings on Concrete and Masonry Construction technical bulletin.
- If using roller, brush, or trowel application, allow to dry to the touch before applying Sikagard[®] AWB 660 I to entire wall surface. If spraying, "wet on wet" application is acceptable.
- Refer to Spray Application of Sikagard[®] AWB 660 I / Sikagard[®] AWB 660/ Sikagard[®] AWB 665 technical bulletin for spray application equipment and application instructions.
- 5. A. Apply Sikagard[®] AWB 660 I to DensGlass[™] exterior sheathing, eXP[™] sheathing, GlasRoc[®] sheathing, Securock[™] glass-mat sheathing, Weather Defense[™] Platinum sheathing, GreenGlass[®] sheathing, PermaBaseTM cement-board by National Gypsum and other cementboards (ASTM C1325 Type A Exterior), gypsum sheathing (ASTM C79/ASTM C1396) and concrete with a 20 mm (3/4") nap roller, stainless steel trowel, brush or spray gun to a consistent, minimum 10 wet mil thickness that is free of voids and pin holes. A fully loaded roller pad is required to obtain a consistent, minimum 10 wet mil thickness. B. Apply Sikagard[®] AWB 660 I at a minimum of 10-mil wet film thickness on concrete/masonry substrates that have received a fully cured application of Sika Thorocoat[®] 749 Block Filler. For concrete/masonry substrates that have not been treated with Sika Thorocoat[®] 749 Block Filler, two (2) minimum 10-mil applications of Sikagard[®] AWB 660 I are required. Note: Lightweight CMU or other CMU with high porosity may require additional Sikagard® AWB 660 I to produce an acceptable result.

C. Apply Sikagard[®] AWB 660 I to plywood and OSB sheathing using a 20 mm (3/4") nap roller or spray to a consistent, minimum 10-mil wet film thickness. Visually inspect to determine whether the sheathing surface is fully coated and free of voids and pinholes. Repair as required to produce a continuous coating. Apply a second 10 ml wet film coat of Sikagard[®] AWB 660 I to produce a total wet film thickness of 20 mils.

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D. Visually inspect the Sikagard® AWB 660 I for voids, pinholes, surface deficiencies, etc. Repair deficiencies and areas that are not intact. Apply additional Sikagard® AWB 660 I as necessary such that Sikagard® AWB 660 I is free of voids, pinholes, etc. All sheathing joints, terminations, inside and outside corners must be reinforced with 4" or 9" Sikagard-540 Plus tape.

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.

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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