ASTM E84

ASTM E84

NFPA 101



Technical Data

Air and Vapour Barrier 3015

Product Description	3M [™] Air and Vapour Barrier 3015 is an air, moisture and water impermeable membrane with an aggressive, high-tack, acrylic pressure-sensitive adhesive that does not require the use of a primer on most construction surfaces.					
Construction Information	Backing	Adhesive	Colour	Liner		
	Multilayer Elastomeric Acrylic Film		Tan, Semi-translucent	cent Polycoated Kraft		
Typical Physical Properties	Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.					
				Test Method		
	Air Permeance of Membrane: @ 75 Pa (0.3 in/wg.)		< 0.0002 L/s·m² (<0.00005 cfm/ft²)	CAN/ULC S741 / ASTM E2178		
	Air Leakage of Assembled Wall: Opaque wall @ 75 Pa (0.3 in/wg.) Penetrated wall @ 75 Pa (0.3 in/wg.) Air Leakage Rate Classification		< 0.01 L/s·m² (<0.002 cfm/ft²) < 0.03 L/s·m² (<0.006 cfm/ft²) A1	ASTM E2178 ASTM E2357 ASTM E2357 CAN ULC-S742		
	Water Vapour Transmiss Desiccant Method Water Method	sion:	8 ng/Pa·s·m² (0.14 US perm) 15 ng/Pa·s·m² (0.26 US perm)	ASTM E96 ASTM E96		
	Water Resistance: 55 cm (21.6 inches) of wa	ater for 5 hours	No Leakage	AATCC 127 (deviated)		
	Low Temperature Flexibility: @ -30°C (-22°F)		Bend Test - pass Water Head Test - No Leakage	ASTM D1970, Section 7.6		
	Nail Sealability: 127 mm (5 inches) water	head after 3 days	Dry / Pass	ASTM D1970, Section 7.9		
	Initial		Pass	ASTM E331/547 a modified per		
	After Thermal Cycling		Pass	AAMA-711-07, Annex 1		
	Wall Assembly Fire Test: Pass as part of various assemblies with foam plastic insulation		Pass	NFPA 285		
	Surface Burning Characteristics:					
	Flame Spread Rating Smoke Developed Classification		15 5	CAN/ULC S102		

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Class A

Flame Spread Index

Rating

Smoke Developed Value

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Typical Physical Properties (continued)	Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.				
	Test Method				
	Backing Thickness:	0.13 mm (5 mils)	ASTM D3652		
	Total Thickness (coated membrane):	0.25 mm (10 mils)	ASTM D3652		
	Tensile Strength (coated membrane):	1740 psi (12 MPa)	ASTM D882		
	Elongation at Break:	700%	ASTM D882		
	Lap Adhesion:	40 oz/in (0.44 N/mm)	ASTM D3330		
	Pull Adhesion:	16 psi (0.11 MPa)	ASTM D4541		
Available sizes	6 cm, 10.1 cm, 15.2 cm, 22.8 cm, 30.4 cm, 45.7 cm, 91.4 cm, x 22.8 m (2-3/8", 4", 6", 9", 12", 18", 36" x 75 feet)				
	Roll size	Roll Weight	Theoretical Coverage		
	45.7 cm x 22.8 m (18" by 75 ft)	4.8 kg (10.5 lbs)	9.8 m² (106 ft²)		
	91.4 cm x 22.8 m (36" by 75 ft)	9.5 kg (21 lbs)	19.7 m² (212 ft²)		
Features	 Meets the requirements of ASTM E2178 and CAN/ULC S741-08. 				
	 Assemblies of 3M[™] Air and Vapour Barrier 3015 and 3M[™] Polyurethane Construction Sealant 525 or 3M[™] Polyurethane Sealant 540 meet the requirements of ASTM E2357 and CAN/ULC-S742-11. 				
	 Compatible with many building sealants: No adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants. 				
	 Service Temperature from -40° to 116°C (-40° to 240°F). 				
	 Can be applied to substrates from -18° to 66°C (0° to 150°F). 				
	 Meets the criteria to contribute to the Environmental Quality ("EQ") Credit 4.1: Low-Emitting Materials: Adhesives & Sealants under the United States Green Building Council's Rating System for New Construction and Major Renovations (LEED-NC), Version 2.2, Core and Shel (LEED-CS), Version 2.0 and Commercial Interiors (LEED-CI), Version 2.0. 				
	Impermeable to air, moisture vapour and water.				
	 Excellent adhesion to concrete, concrete block, anodized aluminum, galvanized metal, plywood and most exterior grade fiberglass matt gypsum boards without the use of any primer. Contact your local 3M representative or refer to 3M Technical Bulletins on 3M™ Air and Vapour Barrier 3015 for details. 				
	 Adhesive provides a unique combination of both cold and hot temperature adhesion to most substrates, which can extend the construction season in many climates. 				
	 Unique adhesive even adheres to damp surfaces that have not absorbed water, like metals, glass and plastics. 				
	 Multilayer Elastomeric Film seals around nails and staples to prevent moisture intrusion. 				
	Resists UV exposure for up to 12 months.				
	 Membrane has measurement markings at 15.2 cm (6") grid intersections for ease in alignment and cutting. 				
Application Ideas	 Designed for use as a self-adhered air, vapour and water barrier for new and remedial commercial and residential applications. 				
	Can be installed onto exterior wall sheathing and behind exterior cladding.				
	 Can be used to transition the building envelope from one substrate to another, or other openings and penetrations. 				

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Surface Preparation	 To obtain the best adhesion, 3M™ Air and Vapour Barrier 3015 should be installed when outdoor temperatures range from -18°C (0°F) to 66°C (150°F). Surfaces should be clean, free from dirt and debris and have not absorbed water. 			
	 Surfaces should be free of any damaged, unsupported areas; sharp protrusions or voids. 			
	 Concrete must be cured a minimum of 7 days before application. 			
	Block or brick walls should have mortar joints stuck flush.			
	 While 3M[™] Air and Vapour Barrier 3015 can be applied as low as -18°C (0°F), surfaces must be clear of snow, ice or frost. 			
	 3M[™] Air and Vapour barrier 3015 adheres to most common building materials. For difficult to stick to surfaces, test adhesion before application. If needed, apply 3M[™] Hi-Strength 90, 3M[™] Hi-Strength 94 ET Spray Adhesive, 3M[™] Scotch-Weld[™] Holdfast 70, or 3M[™] Fastbond[™] Contact Adhesive 30NF to prime the substrate prior to applying the membrane. Products are available as either an aerosol or cylinder spray adhesive. 			
Application Instructions	 Refer to 3M[™] Air and Vapour Barrier 3015 Technical Guide for detailed application information. 			
	 3015 must be lapped a minimum of 5 cm (2") on sides and ends. Cut membrane to desired length and wind up into a roll for easy handling. Fold the starting edge back over itself to crease the paper release liner. Peel back the liner to expose a starting 5-7.6 cm (2-3 inch) adhesive strip. 			
	• 3M™ Air and Vapour Barrier 3015 does not need a primer on most construction surfaces. It is ready to apply as soon as the release liner is removed. The adhesive is very aggressive and quickly bonds to substrates. Do not contaminate the starting strip with dust or debris before applying it to the intended surface. Be careful when aligning product on the wall as repositioning may be challenging.			
	 Once aligned, set the membrane in place by rolling the product back against the exposed adhesive. Unwind the roll while simultaneously pulling the release liner, maintaining pressure against the wall to tack the membrane in place. Wipe the membrane down with a feathering motion from the middle outward to obtain a smooth surface. For best air barrier membrane performance, roll the membrane with a rubber roller to ensure a tight seal against the wall and between overlapped edges. 			
	 Detail work must be carefully executed to ensure a continuously sealed building envelope. Rough openings may be flashed with detail widths of 3M™ Air and Vapour Barrier 3015. 			
Storage	Optimum storage conditions are 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging material.			
Shelf Life	To obtain best performance, use this product within 24 months from date of manufacture.			
Technical Information	The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.			
Product Use	Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factor that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.			

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3M Industrial Adhesives and Tapes Division 3M Canada P.O. Box 5757 London, ON N6A 4T1

Phone 1-800-364-3577 Web 3M.ca/BuildingEnvelope