

March, 2017

3M™ Air and Vapor Barrier 3015

Product Description

3M™ Air and Vapor 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. It even adheres to damp surfaces. This product has a unique acrylic pressure sensitive adhesive that aggressively sticks and stays stuck both at lower and higher application temperatures than traditional air barrier products.

The proprietary backing seals around hand driven nails and staples to prevent moisture intrusion. This backing is also tough, resists punctures and tears, yet it is thin to fit conveniently into corners.

Product Features

- Meets the requirements of ASTM E2178 and CAN/ULC S741-08.
- Assemblies of 3M™ Air and Vapor 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 240°F (-40° to 116°C).
- Can be applied to substrates from 0° to 150°F (-18° to 66°C).
- 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 Shell (LEED-CS), Version 2.0 and Commercial Interiors (LEED-CI), Version 2.0.
- Impermeable to air, moisture vapor 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 Vapor 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 6 inch grid intersections for ease in alignment and cutting.



Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Property	Values		Method	Test Condition	Environmental Condition	Notes
Color	Tan, Semi-Translucent					
Backing Thickness	0.13 mm	5 mil	ASTM D3652			
Backing	Multilayer Elastomeric Film					
Adhesive	Acrylic					
Liner	Polycoated Kraft					
Air Permeance of membrane	<0.0002 L/s/m ²	<0.00005 cfm/ft ²	ASTM E2178	@ 75 Pa(0.3 in/wg.)		
Air Leakage Rate Classification	A1		CAN/ULC-S742			
Water Resistance	No leakage		AATCC 127 (deviated)		55 cm (21.6 inches) of water for 5 hours	
Wall Assembly Fire Test	Pass		NFPA 285			Pass as part of various assemblies with foam plastic insulation
Lap Adhesion	4.4 N/cm	40 oz/in	ASTM D3330			
Pull Adhesion	0.11 MPa	16 lb/in ²	ASTM D4541			
Total Thickness (coated membrane)	0.25 mm	10 mil	ASTM D3652			

Typical Physical Properties (continued)

Air Leakage of assembled wall		Test Condition
<0.01 L/s/m ²	<0.002 cfm/ft ²	Opaque wall @ 75 Pa(0.3 in/wg.)
<0.03 L/s/m ²	<0.006 cfm/ft ²	Penetrated wall @ 75 Pa(0.3 in/wg.)

Property: Air Leakage of assembled wall
Method: ASTM E2357

Water Vapor Transmission		Test Condition
8 ng/s/m ² /Pa	0.14 US Perm	Desiccant Method
15 ng/s/m ² /Pa	0.26 US Perm	Water Method

Property: Water Vapor Transmission

Nail Sealability	Method	Environmental Condition
Dry/Pass	ASTM D1970	127 mm(5 inches) water head after 3 days
Pass	ASTM E331	Initial
Pass	ASTM E331	After Thermal Cycling

Property: Nail Sealability

Typical Performance Characteristics

Property	Values		Method	Test Condition	Notes
Tensile Strength (coated membrane)	12 MPa	1740 lb/in ²	ASTM D882		
Elongation at Break	700 %		ASTM D882		
Low Temperature Flexibility	Pass		ASTM D1970	@ -30°C (-22°F)	Bend Test
Low Temperature Flexibility	No Leakage		ASTM D1970	@ -30°C (-22°F)	Water Head Test
Surface Burning Characteristics: Flame Spread Index	15		ASTM E84		

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Method	Test Condition	Notes
Surface Burning Characteristics: Smoke Developed Index	45		ASTM E84		
Surface Burning Characteristics: Rating	Class A		ICC AC 38		

Available Sizes

2-3/8", 4", 6", 9", 12", 18", 26", 36", 48 in x 75 feet

	Roll Weight	Theoretical Coverage
18" by 75 ft	10.5 lbs (4.8 kg)	106 ft ² (9.8 m ²)
36" by 75 ft	21 lbs (9.5 kg)	212 ft ² (19.7 m ²)
48" by 75 ft	28 lbs (12.7 kg)	282 ft ² (26.2 m ²)

Handling/Application Information

Application Ideas

- Designed for use as a self-adhered air, vapor 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.

Application Techniques

- Refer to 3M™ Air and Vapor Barrier 3015 Specification Guide for detailed application information.
- 3M air and vapor barrier 3015 must be lapped a minimum of 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 2-3 inch adhesive strip.
- 3M air and vapor 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 vapor barrier 3015.

3M™ Air and Vapor Barrier 3015

Handling/Application Information (continued)

Surface Preparation

- To obtain the best adhesion, 3M™ Air and Vapor Barrier 3015 should be installed when outdoor temperatures range from 0°F (-18°C) to 150°F (66°C).
- 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 vapor barrier 3015 can be applied as low as 0°F (-18°C), surfaces must be clear of snow, ice or frost.
- 3M air and vapor 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.

Storage and Shelf Life

Optimum storage conditions are 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material. To obtain best performance, use this product within 24 months from date of manufacture.

Industry Specifications

CAN/ULC S741-08

CAN/ULC-S742-11

- 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 Shell (LEED-CS), Version 2.0 and Commercial Interiors (LEED-CI), Version 2.0.

Trademarks

3M, Scotch-Weld and Fastbond are trademarks of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Air-and-Vapor-Barrier-3015/?N=5002385+8747182+3292988205&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=3015

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and 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. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

