



# Air and Vapor Barrier 3015

Technical Data

March 2017

**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 Construction	Backing	Adhesive	Color	Liner
	Multilayer Elastomeric Film	Acrylic	Tan, semi-translucent	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
<b>Air Permeance of membrane:</b>		
@ 75 Pa (0.3 in/wg.)	< 0.0002 L/s·m <sup>2</sup> (<0.00005 cfm/ft <sup>2</sup> )	ASTM E2178
<b>Air Leakage of assembled wall:</b>		
Opaque wall @ 75 Pa (0.3 in/wg.)	< 0.01 L/s·m <sup>2</sup> (<0.002 cfm/ft <sup>2</sup> )	ASTM E2357
Penetrated wall @ 75 Pa (0.3 in/wg.)	< 0.03 L/s·m <sup>2</sup> (<0.006 cfm/ft <sup>2</sup> )	ASTM E2357
Air Leakage Rate Classification	A1	CAN/ULC-S742
<b>Water Vapor Transmission</b>		
Desiccant Method	8 ng/Pa·s·m <sup>2</sup> (0.14 US perm)	ASTM E96
Water Method	15 ng/Pa·s·m <sup>2</sup> (0.26 US perm)	ASTM E96
<b>Water Resistance</b>		
55 cm (21.6 inches) of water for 5 hours	No Leakage	AATCC 127 (deviated)
<b>Low Temperature Flexibility</b>		
@ -30°C (-22°F)	Bend Test – pass Water Head Test – No Leakage	ASTM D1970, Section 7.6
<b>Nail Sealability</b>		
127 mm (5 inches) water head after 3 days	Dry / Pass	ASTM D1970, Section 7.9
Initial	Pass	ASTM E331/547 as modified per AAMA-711-07,
After Thermal Cycling	Pass	Annex 1

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## Typical Physical Properties (continued)

### Wall Assembly Fire Test

Pass as part of various assemblies with foam plastic insulation	Pass	NFPA 285
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### Surface Burning Characteristics

Flame Spread Index	15	ASTM E84
Smoke Developed Value	45	ASTM E84
Rating	Class A	ICC AC 38

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		Test Method
<b>Backing Thickness:</b>	5 mils (0.13 mm)	ASTM D3652
<b>Total Thickness (coated membrane):</b>	10 mils (0.25 mm)	ASTM D3652
<b>Tensile Strength (coated membrane):</b>	1740 psi (12 MPa)	ASTM D882
<b>Elongation at Break:</b>	700%	ASTM D882
<b>Lap Adhesion</b>	40 oz/in (0.44 N/mm)	ASTM D3330
<b>Pull Adhesion</b>	16 psi (0.11 MPa)	ASTM D4541

## Available Sizes

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

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

## 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.

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## Features (continued)

- 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.
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## 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.
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## Surface Preparation

- To obtain the best adhesion, 3M™ Air and Vapor Barrier 3015 should be installed when outdoor temperatures range from 0°F to 150°F (-18°C to 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.

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## Application Instructions

- 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.

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**Storage** Optimum storage conditions are 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material.

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**Shelf Life** To obtain best performance, use this product within 24 months from date of manufacture.

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**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.

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