

# The science to build smarter.

# 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP



3M™ Air Barrier with Permeable Backing 3015VP is a scrim reinforced Silyl Terminated Polyether (STPE) vapor permeable, air and water impermeable sheet membrane. The aggressive, high-tack acrylic adhesive does not require a primer on most construction surfaces and allows application in the toughest climate conditions.

Compatible with many building sealants and materials: No adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants.

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.

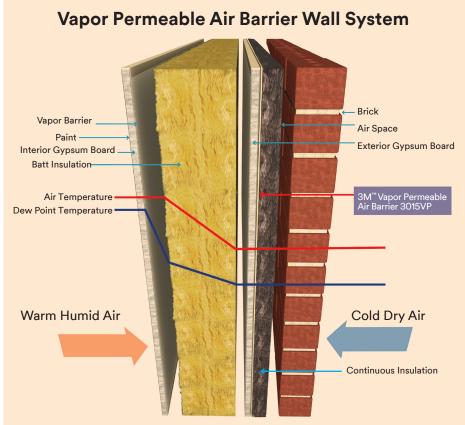


# **Advantages**

3M™ Air Barrier with Permeable Backing 3015VP is engineered to make air barrier application simple and fast. This vapor permeable barrier is as effective as traditional membrane-type air barriers at helping control the indoor climate and is compatible with most other building substrates.

- **No primer required.** Pressure-sensitive acrylic adhesive technology eliminates the time and materials usually required for applying air barriers.
- **Faster installation.** Front release liner allows membrane to be applied to wall before the liner is removed.
- UV resistant up to 12 months.
- Meets AAMA 711-13 Voluntary Specification for Self Adhering Flashing Use for Installation of Exterior Wall Fenestration Products.
- Passes NFPA® 285 (as part of various exterior wall constructions).
- Hot and cold temperature application. Apply in temperatures as high as 150°F (66°C) or as low as 0°F (-18°C).
- **Sealant Compatibility.** 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP has no adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants.
- **Permeable.** U.S. perm rating = 12 (desiccant method), 17 (wet method), per ASTM E96, ensuring a permeable barrier.
- **Self-seals if penetrated.** Seals around nails and staples to further reduce moisture intrusion. It passes ASTM D1970 both before and after thermal cycling.
- **Tough and uniform.** Tough enough to resist punctures and tears Uniform thickness eliminates pinholes seen in liquid membranes.
- **Lightweight and easy to use.** A standard 30" roll weighs 26 pounds, yet it outperforms thicker, competitive membranes weighing up to 2 times more.

One of the basic principles of air barrier design is to ensure that the air temperature curve within the wall assembly is always higher than the dew point temperature curve, as shown in the diagram. If the dew point temperature curve crosses the air temperature curve curve, moisture will condense within the wall, which can compromise building health and performance.



# For a properly designed traditional wall, use 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP to help prevent moisture condensation by keeping the air temperature curve higher than the dew point throughout the wall.

# Apply with Unmatched Speed

Reverse wound technology reduces labor costs with unmatched installation speeds. The liner is removed after each row of membrane is applied to the wall.



Quick, easy vertical or horizontal applications.
Roll it across the wall, apply adequate pressure
with a J-roller, then peel off the liner — that's it.

# Installation

# **Surface Preparation**

Refer to 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP Installation Guide for detailed surface preparation information.

To obtain the best adhesion, 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP 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 it can be applied as low as 0°F (-18°C), surfaces must be clear of snow, ice or frost.
- Adheres to most common building materials. For difficult to stick to surfaces, test adhesion before application (as outlined in section 3.02 of Division 7 Guide Specification). If needed, apply 3M™ Hi-Strength 90 Spray Adhesive, 3M™ Hi-Strength 94 ET Spray Adhesive, 3M™ Holdfast 70 Spray Adhesive 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.

# Installation

# **Application Instructions**

- Refer to 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP Installation Guide for detailed application information.
- Remove outer protective film to expose adhesive surface.
- Must be lapped a minimum of 2" on sides and ends. Remove protective film cover before installing the next layer.
- No primer is needed on most construction surfaces.
- The adhesive is very aggressive and quickly bonds to substrates. Do not contaminate the adhesive area 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 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.
- Remove film covering membrane.
- Detail work must be carefully executed to ensure a continuously sealed building envelope.
- Rough openings may be be flashed with 3M<sup>™</sup> Permeable Liquid Flashing Membrane 3015LF or detail widths of 3M Air and Vapor Barrier 3015, 3M<sup>™</sup> Ultra Conformable Flashing Tape 3015UC, or 3M<sup>™</sup> 3015 Air and Vapor Through Wall Flashing Tape 3015TWF.

# **Performance Standards**

The unique adhesive in this product provides a combination of both cold and hot temperature adhesion to most substrates, helping to extend the construction season. This adhesive even adheres to damp surfaces that have not absorbed water, like metals, glass and plastics.

- Service temperature from -40°F to 240°F (-40°C to 116°C)
- Resists UV exposure for up to 12 months
- Meets the requirements of ASTM E2178 and CAN/ULC S741-08

An air barrier system is designed to control the unintended movement of air flow into and out of the building enclosure.

**1A** 3M<sup>™</sup> Air and Vapor Barrier 3015

**1B**) 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP

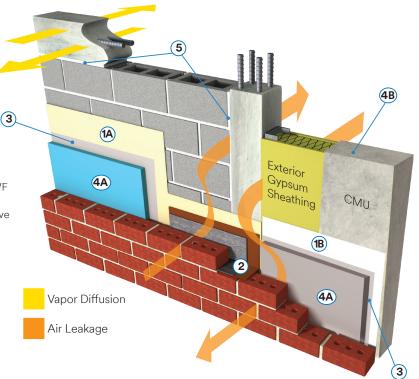
2 3M™ Air and Vapor Through Wall Flashing Tape 3015TWF

3 3M™ Scotch-Weld™ HoldFast 70 Cylinder Spray Adhesive

4A Continuous Insulation

**4B** Fiberglass batt insulation

5 Closed-cell foam insulation or approved sealant



# 3M<sup>™</sup> Air Barrier with Permeable Backing 3015VP

Product Construction	<b>Backing</b> Elastomeric Coated Nonwoven	<b>Adhesive</b> Acrylic Pattern Coated	<b>Color</b> White	<b>Liner</b> Polyester				
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.)	0.0009 L/s.m2 (0.0	0002 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	0.0226 L/s.m2 (0.0 g) 0.0246 L/s.m2 (0.0 A1	•	ASTM E2357 ASTM E2357 CAN/ULC S742				
	Surface Burning Characteristics Flame Spread Rating Smoke Developed Classification Flame Spread Index Smoke Developed Value Rating	10 0 5 0 Class A		CAN/ULC S102 CAN/ULC S102 ASTM E84 ASTM E84 NFPA 101				
	Wall Assembly Fire Test Pass as part of various assemblies v foam plastic insulation	vith Pass	Pass					
	Liner Thickness	0.078 mm (3 mils)		ASTM D3652				
	Total Thickness (coated membrane	e) 0.50 mm (15 mils)	0.50 mm (15 mils)					
	Tensile Strength (coated membra	<b>ne)</b> 8.1 MPa (1177 psi)	8.1 MPa (1177 psi)					
	Elongation at Break	40%	40%					
	Lap Adhesion	0.44 N/mm (50 oz.	0.44 N/mm (50 oz./in)					
	Water Vapor Transmission Desiccant Method Water Method	_	685 ng/Pa.s.m2 (12 US Perms) 970 ng/Pa.s.m2 (17 US Perms)					
	Nail Sealability							
	127mm (5 inches) water head after	3 days Dry/Pass		ASTM D1970-14, Section 7.9				
	Initial	Pass		ASTM E331/547 as modified per AAMA-711-07				
	After Thermal Cycling	Pass		Annex 1				

# **Roll Information**

Packaging		Rolls per BU		Coop (Pollet	Sq. ft.	UPC
Size	Form	Case	Pallet	Case/Pallet	per roll	UPC
30" x 75'	Solid	1	30	30	187.5	00076308983475
60" x 75'	Solid	1	25	25	375.0	00076308983499

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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.

### **Shelf Life**

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

### **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.

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ISO 9001

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

Learn about 3M's advanced technologies for controlling airflow and optimizing the indoor climate at **3M.com/construction** or contact your 3M representative at 1-866-513-4026.



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