3M™ Air Barrier with Permeable Backing 3015VP

Product Description
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™ 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, moisture will condense within the wall, which can compromise building health and performance.

**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.

**Installation**

**Surface Preparation**

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

To obtain the best adhesion, 3M™ 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.
An air barrier system is designed to control the unintended movement of air flow into and out of the building enclosure.

1A 3M™ Air and Vapor Barrier 3015
1B 3M™ 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

Vapor Diffusion
Air Leakage

Application Instructions
• Refer to 3M™ 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™ Permeable Liquid Flashing Membrane 3015LF or detail widths of 3M Air and Vapor Barrier 3015, 3M™ Ultra Conformable Flashing Tape 3015UC, or 3M™ 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
### 3M™ Air Barrier with Permeable Backing 3015VP

**Product Construction**

<table>
<thead>
<tr>
<th>Backing</th>
<th>Adhesive</th>
<th>Color</th>
<th>Liner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elastomeric Coated Nonwoven</td>
<td>Acrylic Pattern Coated</td>
<td>White</td>
<td>Polyester</td>
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</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Test Method</th>
<th>CAN/ULC S102</th>
<th>ASTM E84</th>
<th>NFPA 101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Permeance of Membrane @ 75 Pa (0.3 in/wg.)</td>
<td>0.0009 L/s.m² (0.0002 cfm/ft²)</td>
<td>CAN/ULC S741/ASTM E2178</td>
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<tr>
<td>Air Leakage of Assembled Wall Opaque Wall @ 75 Pa (0.3 in/wg)</td>
<td>0.0226 L/s.m² (0.0053 cfm/ft²)</td>
<td>ASTM E2357</td>
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<tr>
<td>Penetrated Wall @ 75 Pa (0.3 in/wg)</td>
<td>0.0246 L/s.m² (0.0049 cfm/ft²)</td>
<td>ASTM E2357</td>
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<tr>
<td>Air Leakage Rate Classification</td>
<td>A1</td>
<td>CAN/ULC S742</td>
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</tr>
<tr>
<td>Surface Burning Characteristics Flame Spread Rating</td>
<td>10</td>
<td>CAN/ULC S102</td>
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<tr>
<td>Smoke Developed Classification</td>
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<td>CAN/ULC S102</td>
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<tr>
<td>Flame Spread Index</td>
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<td>ASTM E84</td>
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<tr>
<td>Smoke Developed Value</td>
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<td>Rating</td>
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<td>NFPA 101</td>
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<tr>
<td>Wall Assembly Fire Test</td>
<td>Pass</td>
<td>NFPA 285</td>
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<tr>
<td>Pass as part of various assemblies with foam plastic insulation</td>
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<tr>
<td>Liner Thickness</td>
<td>0.078 mm (3 mils)</td>
<td>ASTM D3652</td>
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<tr>
<td>Total Thickness (coated membrane)</td>
<td>0.50 mm (15 mils)</td>
<td>ASTM D3652</td>
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<tr>
<td>Tensile Strength (coated membrane)</td>
<td>8.1 MPa (1177 psi)</td>
<td>ASTM D882</td>
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<tr>
<td>Elongation at Break</td>
<td>40%</td>
<td>ASTM D882</td>
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<td>Lap Adhesion</td>
<td>0.44 N/mm (50 oz./in)</td>
<td>ASTM D3330</td>
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<tr>
<td>Water Vapor Transmission Desiccant Method</td>
<td>685 ng/Pa.s.m² (12 US Perms)</td>
<td>ASTM E96</td>
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<td>Water Method</td>
<td>970 ng/Pa.s.m² (17 US Perms)</td>
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<tr>
<td>Nail Sealability 127mm (5 inches) water head after 3 days</td>
<td>Dry/Pass</td>
<td>ASTM D1970-14, Section 7.9</td>
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<td>Initial</td>
<td>Pass</td>
<td>ASTM E331/547 as modified per AAMA-711-07</td>
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<tr>
<td>After Thermal Cycling</td>
<td>Pass</td>
<td>Annex 1</td>
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### Roll Information

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<tr>
<th>Packaging</th>
<th>Rolls per BU</th>
<th>Case/Pallet</th>
<th>Sq. ft. per roll</th>
<th>UPC</th>
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<tbody>
<tr>
<td>Size</td>
<td>Form</td>
<td>Case</td>
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<tr>
<td>30” x 75’</td>
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<td>30</td>
<td>187.5</td>
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<td>60” x 75’</td>
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<td>25</td>
<td>375.0</td>
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</table>
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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
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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.