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Technical Data Sheet

3M™ Vapor Permeable Air Barrier 3015VP





Product Description

3M™ Vapor Permeable Air Barrier 3015VP is a water vapor permeable, air and water impermeable membrane with a reposionable acrylic adhesive that builds to full strength over time. The membrane does not require the use of a primer on most construction surfaces.

Product Features

- Meets the requirements of ASTM E2178 and CAN/ULC S741.
- Passes Water Resistance Test AATCC (55 cm of water for 5 hours).
 Passes Low Temperature Flexibilly after 4 hours at -29C as per ASTM D1970 Sec 7.6
- Passes NFPA 285 as part of various exterior wall constructions.
- Service temperature from -40° to 240°F (-40° to 150°C).
 Can be applied to substrates from 0° to 150°F (-18° to 66°C).
 Permeable to water vapor, impermeable to air and water.
- Resists UV exposure for up to 12 months.
- Compatible with many building sealants: No adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants. See **3M™ Air Barrier Compatibility Listing Technical Bulletin** for the latest
- Excellent adhesion to concrete, concrete block, anodized aluminum, galvanized metal, plywood and most exterior grade fiberglass mat gypsum boards without the use of any primer. See 3M™ Air Barrier Compatibility Listing Technical Bulletin for the latest 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.

Clear liner leaves adhesive exposed to simplify installation.

- Adhesive is initially repositionable to simplify installation. Adhesive strength builds over time once pressure is applied.
- Seals around nails and staples to prevent moisture intrusion.

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

| Attribute Name | Test Method | Value |
|-----------------------------------|-------------|-----------------------------|
| Color | | White with red print |
| Adhesive Type | | Acrylic |
| Backing | | Elastomeric Coated Nonwoven |
| Total Thickness (Coated Membrane) | ASTM D3652 | 0.32 mm (12.6 mil) |
| Liner | | Polyester |

| Attribute Name | Test Method | Environmental Condition | Test Condition | Value |
|--------------------|-------------|-------------------------|----------------|-------------------|
| Water Vapor | ASTM E96 | | Wet Cup | 13 US Perms |
| Transmission | ASTM E90 | | wet cup | 15 05 Pellis |
| Water Vapor | ACTM FOG | | Dm. Cum | 10 LIC Dayman |
| Transmission | ASTM E96 | | Dry Cup | 10 US Perms |
| Wall Assembly Fire | NEDA 205 | | | Dogs 1 |
| Test | NFPA 285 | | | Pass ¹ |

| Attribute Name | Test Method | Environmental Condition | Test Condition | Value |
|------------------|---------------|-------------------------|------------------|-----------------------------------|
| | | 127 mm(5 inches) | | |
| Nail Sealability | ASTM D1970 | water head after 3 | | Dry/Pass |
| | | days | | |
| Air Leakage of | ASTM E2357 | | Opaque wall @ 75 | .0435 L/s/m ² (0.0087 |
| assembled wall | ASTM E2337 | | Pa(0.3 in/wg.) | cfm/ft²) |
| Air Leakage of | CANULI C C742 | | | 0.0409 L/s/m ² (0.0082 |
| assembled wall | CAN/ULC S742 | | | cfm/ft²) ² |

¹ Pass as part of various assemblies with foam plastic insulation

Typical Performance Characteristics

| Attribute Name | Test Method | Dwell Time | Temperature | Substrate | Value |
|------------------|-------------|------------|---------------|-----------------|---------------------|
| Elongation at | ASTM D882 | | | | 40 % |
| Break | ASTM DOOZ | | | | 40 /0 |
| Tensile Strength | | | | | 4.6 N/mm (26.1 |
| (Coated | ASTM D882 | | | | lb/in) |
| Membrane) | | | | | |
| Lan Adhasian | ASTM D3330 | | | | 0.91 N/mm (83 |
| Lap Adhesion | | | | | oz/in) |
| 180° Peel | ACTM D2220 | 24 h | 22 °C (72 °F) | Concrete | .4 N/mm (37 |
| Adhesion | ASTM D3330 | 24 11 | 22 C (72 F) | | oz/in) ¹ |
| 180° Peel | ASTM D3330 | 24 h | 22 °C (72 °F) | Exterior Grade | .62 N/mm (57 |
| Adhesion | | | | Gypsum Board | oz/in) ¹ |
| Pull Adhesion | ASTM D4541 | | | Exterior Gypsum | 124 MPa (18 |
| | | | | Board | lb/in²) |

^{1 12} in/min (300 mm/min)

| Attribute Name | Test Method | Value | |
|-----------------------|--------------|---------|--|
| Flame Spread Index | ASTM E84 | 10 | |
| Smoke Developed Index | ASTM E84 | 40 | |
| Flame Spread Index | CAN/ULC S102 | 15 | |
| Smoke Developed Index | CAN/ULC S102 | 15 | |
| Rating | ICC AC 38 | Class A | |

² Penetrated wall @ 75 Pa(0.3 in/wg.)

Handling/Application Information

Surface Preparation

- To obtain the best adhesion, 3M™ Air Barrier 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 not have 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 tooled or stuck flush.
- While it can be applied as low as 0°F (-18°C), surfaces must be clear of snow, ice or frost.

Application Techniques

- Refer to 3M™ Air Barrier 3015VP Installation Guide for detailed application information.
 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.
 Once aligned, 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. 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 flashed with detail widths of 3M™ Non-Permeable Air Barrier 3015NP, 3M™ Through Wall Flashing 3015TWF or 3M™ Vapor Permeable Air Barrier 3015VP.

Industry Specifications

CAN/ULC S741

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Information

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ISO Statement

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