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Fire Protection Products



3M™ Fire and Water Barrier Tape

Technical Data Sheet | September / 2019

Product Description

3M™ Fire and Water Barrier Tape is a self-adhered membrane that provides a tough, elastomeric coating. This product has a unique pressure sensitive adhesive that aggressively sticks and stays stuck to a wide variety of substrates at both high and low temperatures and will even adhere to damp surfaces. This material is used to firestop perimeter joints (curtain wall), construction joints, and through penetration openings. 3M™ Fire and Water Barrier Tape, when installed properly, will act as a barrier to water leakage and airborne sound transmission, while helping to control the transmission of fire, heat and smoke before, during and after exposure to fire.

Product Features

- Up to 4-hour fire protection in construction joints per ASTM E1966 (UL 2079) and CAN/ULC-S115
- Up to 3-hour fire protection in perimeter joints per ASTM E2307
- Up to 2-hour fire protection in through-penetration applications per ASTM E814 (UL 1479) and CAN/ULC-S115
- Elastic material maintains performance with up to ± 50% movement capabilities
- Meets UL Water Leakage Test, W-Rating – Class 1 requirements
- Paintable – recommended to test on a sample or in a discrete location to ensure compatibility
- Broad range of applications (extensive portfolio of tested and listed building and perimeter joint systems)
- High tack adhesive sticks and stays stuck to most common building materials – exceeds the AAMA 711 minimum for adhesion in peel
- Can be installed in temperatures as low as 0°F (-18°C) and as high as 150°F (65°C)
- Unique adhesive even adheres to damp surfaces

Applications

3M™ Fire and Water Barrier Tape is ideal for sealing perimeter joints (curtain walls) and construction joints, as well as some through penetration applications. Recommended for firestopping areas that require a watertight seal and large coverage.

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Specifications

3M™ Fire and Water Barrier Tape shall be tested and evaluated to the pass/fail criteria of ASTM E1966/UL 2079 Standard Test Method for Fire Tests of Construction Joint Firestop Systems and CAN/ULC-S115 at the maximum extended joint width, ASTM E2307 Standard Test Method for Fire Tests of Perimeter Joint Firestop Systems and CAN/ULC-S115 at the maximum extended joint width, and ASTM E814/UL 1479 Standard Test Method for Fire Tests of Penetration Firestop Systems. 3M™ Fire and Water Barrier Tape shall also be tested to the criteria of ASTM E84/UL 723 Standard Test Method for Surface Burning Characteristics of Building Materials, ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements, and ASTM E413 Classification for Rating Sound Insulation. 3M™ Fire and Water Barrier Tape shall meet the requirements of the IBC, IRC, IFC, IPC, IMC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NBCC.

Performance and Typical Physical Properties

Sizes Available	2 inches x 75 feet (51 mm x 22,8 m)	24 rolls/case
	3 inches x 75 feet (76 mm x 22,8 m)	16 rolls/case
	4 inches x 75 feet (101 mm x 22,8 m)	12 rolls/case
	6 inches x 75 feet (152 mm x 22,8 m)	8 rolls/case
	8 inches x 75 feet (202 mm x 22,8 m)	4 rolls/case
	12 inches x 75 feet (303 mm x 22,8 m)	4 rolls/case
Coverage (sq. ft./roll)	12.5 (2 inch), 18.75 (3 inch), 25 (4 inch), 37.5 (6 inch), 50 (8 inch), 75 (12 inch)	
Surface Burning Characteristics (ASTM E84)	Flame Spread Index: 10 Smoke Developed Value: 10	
Adhesion (oz./in. width, per ASTM D3330)	To concrete: >55 oz./in. To gypsum: >55 oz./in. To stainless steel: >60 oz./in. To anodized aluminum: >60 oz./in. To OSB: >50 oz./in.	
STC Rating (ASTM E90/ASTM E413)	63 in a 63 rated wall (when installed with mineral wool) 62 in a 63 rated wall (tape only – no backing material)	
Rain Resistance (24-hour exposure; ASTM D6904)	Pass (immediately after application)	
Mold and Mildew Resistance (ASTM G21/ASTM D4300)	0% growth	
Tape Thickness	10 mils (0.25 mm)	
Service Temp. Range	-40 to 240°F (-40 to 116°C)	
Tensile Strength (coated membrane, psi) (ASTM D882)	>1700	

Elongation % (coated membrane) (ASTM D882)	>700
Water Vapor Transmission (ASTM E96/E96M)	0.19 perms
Outdoor exposure	Up to 12 months with no product degradation

Installation Techniques

Consult a 3M Authorized Fire Protection Products Distributor or Sales Representative for applicable UL, ULC, Intertek or other third-party drawings and system details.

Equipment: 3M™ Fire and Water Barrier Tape may be applied entirely by hand or with the aid of a putty knife and roller.

Preparatory Work: Surfaces must be frost free and clean; brushed, swept, or blown free of dust and debris. For optimal adhesion, concrete surface should be a steel floated smooth surface, or equivalent, that is free of chemical additives and/or compounds that could inhibit adhesion. For rougher surfaces (e.g. broom finished) tape overlap onto substrate may need to be increased to achieve optimal adhesion. Check with your local 3M rep to determine acceptable finishes and required overlaps.

Installation Details: Tested and listed system details must be followed for each specific application. Install mineral fiber insulation in accordance with system details for density, depth and compressions requirements. Apply 3M™ Fire and Water Barrier Tape. The tape should be applied over the insulation, adjacent substrates and penetrant (if applicable) maintaining all required overlaps in accordance with system details.

Limitations: It is recommended that 3M™ Fire and Water Barrier Tape is applied at a temperature between 0°F (-18°C) and 150°F (65°C). 3M™ Fire and Water Barrier Tape can be applied and expected to adhere to surfaces that are 0°F (-18°C) or higher providing that the surfaces are frost free, clean, and dust free.

Maintenance

No maintenance is expected to be required when installed in accordance with the 3M™ Fire and Water Barrier Tape Installation Guide. Once installed, if any section of the 3M™ Fire and Water Barrier Tape is damaged, the following procedure will apply:
The insulation material must be inspected to ensure no moisture is evident. The open or damaged area must then be completely covered with new product, installed as detailed in the original applicable 3rd party tested and listed system. The new product must overlap a minimum 1 in. (25.4mm) onto the previously installed product.

Storage and Shelf Life

3M™ Fire and Water Barrier Tape should be stored indoors in dry conditions in the original packaging. To obtain best performance, use this product within 24 months from date of manufacture which can be determined from the lot number (found on the label inside of the cardboard core). The label format is as follows:

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	Name of tape – Work order number – Lot number (e.g. FWBT – 123456 – 634501) **Lot numbering (e.g. 634501):** First digit = Last digit of year manufactured, second to fourth digit = Julian Date, Last two digits = Random to distinguish between lot numbers. 634501 = December 10, 2016
Availability	Available from 3M Authorized Fire Protection Products Distributors. For additional technical and purchasing information, call 1-800-328-1687 or visit 3M.com/firestop.
Safe Handling	Consult Article Information Sheet prior to handling and disposing of 3M™ Fire and Water Barrier Tape.
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.
Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.
Warranty, Limited Remedy and Disclaimer	Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

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