

# Fire Protection Products



## 3M™ Smoke and Sound Tape

Technical Data Sheet

September / 2019

### Product Description

3M™ Smoke and Sound 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 provide a hot and cold smoke seal as well help reduce the transmission of sound.

### Product Features

- Elastic material maintains performance with up to  $\pm 50\%$  movement capabilities when evaluated to ASTM E1399
- Paintable – recommended to test on a sample or in a discrete location to ensure compatibility
- Creates an effective barrier to mitigate smoke and toxic gas spread, L-rating of less than 1 CFM/linear foot at ambient and 400°F
- Single-side installations
- Capable of up to  $\pm 129\%$  movement in Z-direction and up to  $\pm 54\%$  movement in Y-direction when evaluated to ASTM E3037, while still maintaining an L-rating of less than 1 CFM/sq. foot
- 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™ Smoke and Sound Tape is ideal for providing a smoke seal for construction joints, as well as some through penetration applications in non-fire-rated wall and floor assemblies, including smoke partitions and acoustic assemblies.

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### Specifications

3M™ Smoke and Sound Tape shall 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™ Smoke and Sound 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. To Vinyl: 60 oz/in. To Polyethylene: 45 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)	
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	

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### 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™ Smoke and Sound 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:** Installation details must be followed for each application. Install mineral fiber insulation in accordance with system details for density, depth and compressions requirements. Apply 3M™ Smoke and Sound Tape by hand. The tape should be applied over the insulation, adjacent substrates and penetrant (if applicable) maintaining all required overlaps in accordance with installation details. For single-side installations, a double layer of tape may be required to achieve the desired L-rating.

**Limitations:** It is recommended that 3M™ Smoke and Sound Tape is applied at a temperature between 0°F (-18°C) and 150°F (65°C). 3M™ Smoke and Sound 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.

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### Maintenance

No maintenance is expected to be required when installed in accordance with the 3M™ Smoke and Sound Tape Installation Guide. Once installed, if any section of the 3M™ Smoke and Sound Tape is damaged, the following procedure will apply: If insulation material is used it 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.

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### Storage and Shelf Life

3M™ Smoke and Sound Tape should be stored indoors in dry conditions in the original packaging. To obtain best performance, use this product within 36 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: 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

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Availability	Available from 3M Authorized Fire Protection Products Distributors. For additional technical and purchasing information, call 1-800-328-1687 or visit <a href="http://3M.com/firestop">3M.com/firestop</a> .
Safe Handling	Consult Article Information Sheet prior to handling and disposing of 3M™ Smoke and Sound 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.
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