

Fire Protection Products

3M™ Fire Barrier Pillows and Self-Locking Pillows

Technical Data Sheet

January / 2022

Product Description

3M™ Fire Barrier Pillows and 3M™ Fire Barrier Self-Locking Pillows are a self-contained, intumescent firestop product for use in through-penetration firestops. Intumescent fire-rated pillows are designed to expand during a fire, locking themselves around vital components. Simple to use, fire barrier pillow products offer an ideal solution for medium and large through penetrations which balances cost effectiveness with ease of installation. 3M™ Fire Barrier Self Locking Pillows combine intumescent fire-rated material and a range of sizes with interlocking hook and loop strips that allow installers to easily lock multiple pillows together without tools.

Product Features

- Tested in accordance with ASTM E814/UL 1479 and CAN/ULC-S115
- Red Color with 3M logo provides quality assurance with instant product identification and correct product installation
- Easy to inspect
- Easy retrofit - remove and replace pillows, as needed
- Interlocking strips on Fire Barrier Self-Locking Pillows lock pillows together without additional tools
- Available in three sizes to fit a variety of openings
- Very easy to install — saves time and labor
- Easy to remove, re-enter, and fully reusable
- Up to 3-hour UL Listings (system dependent)
- Passes hose stream test without additional support
- Tested to UL 1479 L Rating (Air Leakage)
- Listed for blank or filled openings in gypsum wallboard or concrete assemblies
- Allows for field cutting if needed to fill a variety of opening sizes

Applications

3M™ Fire Barrier Pillows and Self-Locking Pillows are ideal for firestopping medium to large openings with power or communication cables, conduits and cable racks or cable trays. No additional supports or mesh are required to secure the firestopping in place. Systems are available for a variety of construction types including openings in gypsum wall, concrete or block wall, and concrete floors. Pillows can be used to protect blank openings up to 540 sq. in. (3483 sq. cm). Systems allow for 1 or two cable racks or trays per penetration in addition to other cables and metallic pipes. For complete details see the UL through-penetration firestop systems available at the UL Online Certifications Directory (www.ul.com) or the 3M Application and Specifiers' Guide (www.mmm.com/firestop).

3M Fire Protection Products

3M™ Fire Barrier Pillows and Self-Locking Pillows

Specifications

Installation shall be in strict accordance with manufacturer's written instructions, as shown on approved shop drawings. When properly installed, these through-penetration firestops prevent the spread of fire, smoke and toxic gases, helping maintain the original fire resistance rating of the construction assembly that has been penetrated.

3M™ Fire Barrier Pillows and Fire Barrier Self-Locking Pillows shall be listed by independent test agencies such as UL, Intertek, or FM and shall be tested under the pass/fail requirements of ASTM E814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems or CAN/ULC-S115 Standard Method of Fire Tests of Firestop Systems. Suitability for the intended application should be determined prior to installation.

Performance and Typical Physical Properties

Heat Expansion Begins	392°F (200°C)
Significant Expansion Begins	536°F (280°C)
Volume Expansion	18% (calculated)

Product Names and Dimensions

Product Name	Dimensions
Pillow FB 249	2 in. x 4 in. x 9 in. (51 mm x 10.2 cm x 22.8 cm)
Pillow FB 269	2 in. x 6 in. x 9 in. (51 mm x 15.2 cm x 22.8 cm)
Pillow FB 369	3 in. x 6 in. x 9 in. (76 mm x 15.2 cm x 22.8 cm)
Self-Locking Pillow – Small	2 in. x 4 in. x 9 in. (51 mm x 10.2 cm x 22.8 cm)
Self-Locking Pillow – Medium	2 in. x 6 in. x 9 in. (51 mm x 15.2 cm x 22.8 cm)
Self-Locking Pillow – Large	3 in. x 6 in. x 9 in. (76 mm x 15.2 cm x 22.8 cm)

Installation Techniques

Equipment: No additional tools or equipment is needed to install Fire Barrier Pillows or Self-Locking Pillows.

Installation Details: Apply 3M™ Fire Barrier Pillows and Self-Locking Pillows by hand. Third party tested and listed systems details must be followed for each specific application. Consult the individual UL system for required location of 3M™ Fire Barrier Moldable Putty MP+ before installing pillows within the opening. Install the 3M™ Fire Barrier Pillow or Self-Locking Pillow so the 9 inch (22.8 cm) dimension travels through the opening in the wall or floor. Compress the pillows minimum 33% and insert into the opening. A single size of pillow or combination of small, medium and large pillows may be used to complete the correct firestop through-penetration installation. Continue installing the pillows until the penetration is completely full and the correct compression has been achieved. Check for any openings between pillows, framing and penetrating items. Fill any visible openings with the required depth of 3M Moldable Putty+, sealant or FIP 1-Step Foam. Consult individual UL systems for depth requirements. To remove

3M Fire Protection Products

3M™ Fire Barrier Pillows and Self-Locking Pillows

the pillows from the opening, first remove the putty, foam or sealant. Gently loosen the self-locking bond between the installed self-locking pillows. Gently pull pillow(s) out and place on a clean surface. After penetrants are routed through the opening, replace the pillow(s) making sure the self-locking portion of the pillow(s) are aligned. Seal any openings between pillows, framing and penetrating items with 3M Moldable Putty+, FIP 1-Step Foam, or 3M Fire Barrier sealant.

Calculating Pillow Fill and Compression: Measure the opening in inches and multiply the length by the width to get the total area. Then deduct the area of the penetrating item (rack & cables) to determine the total open area (annular space). This is the amount of area to be firestopped.

Multiply the open area by a factor of 1.5 to determine the required area of uncompressed pillows. This will ensure that once installed the pillow will achieve minimum 33% compression.

Limitations: It is recommended that 3M™ Fire Barrier Pillows and Self-Locking Pillows are applied when the product is at a temperature between 40°F (4°C) and 110°F (43°C). It is recommended that 3M™ Fire Barrier Pillows and Self-Locking Pillows be applied when the ambient air temperature is 32°F (0°C) or higher.

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

Maintenance	No maintenance is expected to be required when 3M™ Fire Barrier Pillows and Self-Locking Pillows are installed in accordance with manufacturer's installation instructions. Once installed, if 3M™ Fire Barrier Pillows and Self-Locking Pillows are damaged, the following procedure will apply, damaged pillows must be removed and replaced with new product.
Storage and Shelf Life	3M™ Fire Barrier Pillows and Self-Locking Pillows should be stored in a dry warehouse environment. Pallets should not be stacked. 3M™ Fire Barrier Pillows and Self-Locking Pillows shelf life is indefinite when stored indoor in dry conditions.
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 Safety Data Sheet prior to handling and disposing of 3M™ Fire Barrier Pillows and Self-Locking Pillows.
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 in accordance with all

3M Fire Protection Products

3M™ Fire Barrier Pillows and Self-Locking Pillows

applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy and Disclaimer	Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 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, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement or repair of the 3M product or refund of the purchase price. Warranty claims must be made within one (1) year from the date of 3M's shipment.
Limitation of Liability	Except for the limited remedy stated above, and except to the extent prohibited by applicable law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.
Disclaimer	3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and other limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, death, or property damage. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com .



Industrial Adhesives and Tapes Division
3M Center, Building 230-1G-06
St. Paul, MN 55144-1000
Phone 800-328-1687
Fax 877-369-2923
Web 3M.com/firestop

3M and 3M Science. Applied to Life. are trademarks of 3M Company
© 3M 2022. All rights reserved.