# 3M™ Fire Barrier Rated Foam FIP 1-Step

## Product Data Sheet

## 1. Product Description

3M™ Fire Barrier Rated Foam (FIP 1-Step), is a smoke, sound, and firestopping foam for wall and floor penetrations. Premium two-part, easy-to-handle formulation. Expands up to five times during installation and bonds to most construction substrates including, but not limited to, concrete, metal, wood, plastic and cable jacketing. Dries to a flexible solid. During a fire, product maintains a tight firestop against smoke and flame.

### ATTENTION: CODE OFFICIALS

### FIP 1-Step

- ☑ Is a Rated Firestop Foam
- ☑ UL/ULC Listed
- ☑ Meets ASTM E 814 & CAN/ULC S115
- ☑ Meets the International Building Code for passive fire protection

CLASSIFIED UL — FILL, VOID OR CAVITY MATERIAL FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS SEE UL FIRE RESISTANCE DIRECTORY 50L6

ULC LISTED — FILL, VOID OR CAVITY MATERIAL

SOUND BARRIER: STC 57 — In STC 57-rated wall assembly

SMOKE SEAL: L RATED — Meets Air Leakage Requirements

FIRE BARRIER: F RATED — UP TO 2 HOUR

TEMPERATURE: T RATED — UP TO 1 HOUR

PLEASE SEE APPROPRIATE UL SYSTEM FOR ASSOCIATED RATING.

- Re-enterable / repairable
- Sag-resistant formulation
- Excellent adhesion
- Paintable with primer
- Quick cure & eliminates the need for mineral wool and caulk

## 2. Applications

Typical applications include: blank openings, metal pipe, cables, cable tray, insulated pipe, combination penetrations through concrete floor/wall and gypsum wall board assemblies.

## 3. Specifications

FIP 1-Step shall be a two-component, ready-to-use, gun-grade, firestopping foam. FIP 1-Step shall be tested to the criteria of CAN/ULC S115 Standard Test Method for Fire Tests of Penetration Firestop Systems, ASTM E 84 / UL 723 Standard Test Method for Surface Burning Characteristics of Building Materials, ASTM E 90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements, and ASTM E 413 Classification for Rating Sound Insulation. FIP 1-Step shall meet the requirements of the IBC, IRC, IFC, IPC, IMC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NBCC.

**Typically Specified Divisions**
Division 7
Section 07 84 00 - Firestopping
Section 07 27 00 - Air Barriers

**Related Sections**
Section 07 86 00 - Smoke Seals
Section 07 87 00 - Smoke Containment Barriers
Section 21 00 00 - Fire Suppression
Section 22 00 00 - Plumbing
Section 26 00 00 - Electrical

## 4. Storage & Shelf Life

**Storage**

FIP 1-Step should be stored indoors in dry conditions between 40°F and 85°F (5°C and 30°C). Avoid freeze / thaw exposures of the FIP 1-Step while still in the packaging. If product freezes, then product must be fully thawed and brought to ideal application temperature prior to use (See Section 5).

**Shelf Life**

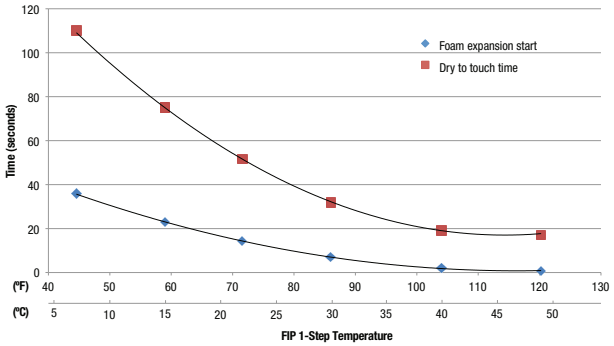
FIP 1-Step shelf life is 12 months in original unopened containers from date of packaging when stored above 68°F (20°C) and below 90°F (32.2°C).

Lot numbering: First to fourth digit = Date of Production (YYMM)
Fifth digit = 4 (Production Code)
Sixth and Seventh digit = (Batch #)
(***Note: Expiration Date marked on cartridge)

# 5. Performance & Typical Physical Properties

| | |
|---|---|
| **Colours Available:** | Maroon |
| **Application Temperature Range:** | 50° to 120°F (10° to 49°C) |
| **Surface Burning** (ASTM E 84)**:** | Flame Spread 10<br>Smoke Development 50 |
| **STC Acoustic Barrier** (ASTM E 90 and ASTM E 413)**:** | 57 when tested in STC 57 rated wall assembly |
| **Unit Volume:** | 12.85 fl. oz. cartridge (380 mL) |
| **VOC Less H2O and Exempt Solvents:** | <250 g/L |
| **Cure:** Foam becomes tack-free in about one minute. Full cure depends upon ambient conditions and volume of foam. Typical cure at 75°F (24°C) is approximately 2 minutes. | |
| **Air Leakage** (UL 1479 Section 6)**:** | <1 CFM/Sq Ft |
| **Yield:** | Up to 116 cubic inches |
| **Leed:** Meets the intent of LEED VOC regulations. <250 g/L VOC contents (less H2O and exempt solvents). | |

**Foam Expansion Start Time / Dry to Touch Time at various FIP 1-Step temperatures**




**Note: Expansion Start Time and Dry to Touch Times are NOT dependent on ambient air temperature. Expansion Start Time and Dry to Touch Times are dependent on FIP 1-Step temperature.*

# 6. Installation Techniques

*Consult a 3M Authorized Fire Protection Products Distributor or Sales Representative for applicable drawings and details.*

**Preparatory Work** The surface of the opening and any penetrating items should be cleaned to allow for the proper adhesion of the 3M™ Fire Barrier Rated Foam (FIP 1-Step). Ensure that the surface of the substrates are not wet and are free from dust, debris and frost. Foam can be installed with either the manual or battery powered dispenser.

**Installation Details** Install the applicable depth of the FIP 1-Step as detailed within the applicable 3M ULC listed system. Please reference FIP 1-Step Installation Guide for further installation details. The FIP 1-Step may be trimmed after installation to be flush with the surface of the substrate. Clean all tools immediately after use with water if needed.

**Limitations** Do not apply FIP 1-Step when the cartridge temperature is less than 50°F (10°C), damage may occur to cartridge or dispensing equipment. Do not apply FIP 1-Step to building materials that bleed oil, plasticizers or solvent (e.g. impregnated wood, oil-based sealants, or green or partially-vulcanized rubber). Do not apply FIP 1-Step to wet or frost-coated surfaces or areas that are continuously damp or immersed in water. This product is not acceptable for use with chlorinated polyvinylchloride (CPVC) pipes.

# 7. Maintenance

No maintenance is expected when installed in accordance with manufacturer's installation guidelines. Once installed, if any section of the FIP 1-Step is damaged, the following procedure will apply: remove and reinstall the damaged section in accordance with the applicable FIP 1-Step UL Listed system.

# 8. Availability

FIP 1-Step is available in 12.85 fl. oz. cartridges. For additional technical and purchasing information regarding this and other 3M™ Fire Protection Products, please call: 1-800-328-1687 or visit www.3M.com/firestop.

# 9. Safe Handling Information

*Consult product's Material Safety Data Sheet (MSDS) prior to handling and disposal.*

**Product Use:** All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the product in a particular application, including the conditions under which the 3M product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application. **Warranty and Limited Remedy:** 3M warrants that each 3M product meets the applicable specifications 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.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to repair or replace the product or refund the purchase price. **Limitation of Liability:** Except where prohibited by law, 3M and seller 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, condition, contract, negligence or strict liability.

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