



# 3M™ Fire Barrier Mortar

## Product Data Sheet

### 1. Product Description

3M™ Fire Barrier Mortar is a lightweight gypsum-based and endothermic firestop that is ready for mixing with potable water. 3M™ Fire Barrier Mortar will firestop penetrations passing through fire-rated floor or wall assemblies and other fire-rated interior building construction. 3M™ Fire Barrier Mortar exhibits excellent adhesion to a full range of construction substrates and penetrants. In addition, it will act as a heat sink, absorbing heat from penetrants and reducing the likelihood of combustible matter igniting on the unexposed side of the assembly.

Variable Mix Ratio: permits self-leveling as well as trowelable application consistencies, resulting in labor savings.



Cost-effective firestopping for through penetrations. Available in 5 gallon (28 pound) pails and 44 pound bags.

Product Color:  Off-white with Dark Flecks

### Product Features

- Firestop tested up to 3 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- UL-listed systems (including concrete floors up to 2-1/2 in. (63.5 cm) minimum thickness)
- Excellent adhesion: bonds to concrete, metals, wood, plastic and cable jacketing
- Re-enterable/repairable with common hole saw
- Paintable with primer
- Halogen-free formula
- Water clean up (prior to cure)

FIRE BARRIER



LISTED

FILL, VOID OR CAVITY MATERIALS 90G9



FILL, VOID, OR CAVITY FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS SEE UL FIRE RESISTANCE DIRECTORY 90G9

### 2. Applications

3M™ Fire Barrier Mortar is a cost-effective firestop typically used to seal mechanical and electrical service penetrations, blank openings and other large annular spaces in fire-resistance rated wall and floor assemblies with ratings up to 3 hours. The firestop material can be mixed to a self-leveling consistency (2 parts mortar mix: 1 part water) for floor applications or it can be mixed to a trowelable consistency (3 parts mortar mix: 1 part water) for application to vertical and horizontal substrates.

### 3. Specifications

3M™ Fire Barrier Mortar is a one-component endothermic firestop capable of filling large voids in fire-rated walls and floors. The firestop material can be mixed to a self-leveling consistency (2 parts mortar mix: 1 part water) for floor applications or it can be mixed to a trowelable consistency (3 parts mortar mix: 1 part water) for application to vertical and horizontal substrates. The mortar shall be listed by independent test agencies such as UL. 3M™ Fire Barrier Mortar shall be tested to and pass the criteria of ASTM E 814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems, and CAN/ULC S115 Standard Method of Fire Tests of Firestop Systems. 3M™ Fire Barrier Mortar meets the requirements of the IBC, IRC, IFC, IPC, IMC, NFPA 5000, NEC (NFPA 70) and NFPA 101.

#### Typically Specified MasterFormat (2004)

Division 7

Section 07 84 00 – Firestopping

#### Related Sections

Section 07 27 00 – Air Barriers

Section 07 84 16 – Annular Space Protection

Section 07 86 00 – Smoke Seals

Section 07 87 00 – Smoke Containment Barriers



For technical support relating to 3M Fire Protection Products and Systems, call: 1-800-328-1687

For more information on 3M Fire Protection Products, visit: [www.3m.com/firestop](http://www.3m.com/firestop)

## 4. Performance & Typical Physical Properties

<b>Color:</b>	Off-white with dark flecks	<b>Cure Hardness:</b>	Under typical cure conditions of 75°F (23°C) and 50% R.H., mortar will accept mechanical anchors 12 hours after application.
<b>Appearance:</b>	Powdered solid	<b>Cured Mortar Yield</b>	
<b>Bulk Powder Density:</b>	41.6 lb/ft <sup>3</sup> (667 kg/m <sup>3</sup> )	44 lb. bag:	1,096 in <sup>3</sup> (.01796 m <sup>3</sup> )
<b>Application Temperature Range:</b> (ASTM C 1299)	40° to 122°F (4° to 50°C)	5 gal. pail:	697 in <sup>3</sup> (.0114 m <sup>3</sup> )
<b>Service Temperature Range:</b>	-20° to 180°F (-28° to 82°C)		

## 5. Packaging, Storage, Shelf Life

<b>Packaging</b>	Plastic pail containing 28 lb. (12.7 kg) of dry 3M™ Fire Barrier Mortar and poly-lined paper bag containing 44 lb. (20 kg) of dry 3M™ Fire Barrier Mortar.
<b>Storage</b>	Store in dry, indoor conditions. Do not allow product to become wet prior to application.
<b>Shelf Life</b>	Bagged product: Three years from date of packaging when stored in original unopened bags in dry, indoor conditions. Plastic pail product: Indefinite shelf life when stored in original, unopened pails in dry, indoor conditions. Lot numbering (e.g. 8183AS): First digit = Last digit of year manufactured, Second to fourth digit = Julian Date, Letters = Random to distinguish between lot numbers

## 6. Installation Techniques

*Consult a 3M Authorized Fire Protection Products Distributor / Dealer or Sales Representative for applicable third-party drawings and system details.*

<b>Preparatory Work</b>	The surface of the opening and any penetrating items should be cleaned to allow for the proper adhesion of the 3M™ Fire Barrier Mortar. Ensure that the surfaces are free of frost.
<b>Mixing Instructions</b>	Mix ratio can be varied from 1 part water to 2 parts powder for self-leveling and 1 part water to 3 parts powder for trowelable mortar. Mix the mortar until it is homogeneous and smooth, for a total of not less than 5 minutes. Watch for dry spots at the bottom edges of the pail.
<b>Installation Details</b>	Install the applicable depth of damming material as detailed within the listed system. Install the applicable depth of 3M™ Fire Barrier Mortar into the opening flush with the surface of the substrate, or as detailed within the applicable listed system, at the depth for the assembly and rating that is required. Tool within 20 minutes. Immediately clean all tools after use with water.
<b>Limitations</b>	3M™ Fire Barrier Mortar cannot be installed in below freezing temperatures. Do not apply 3M™ Fire Barrier Mortar when surrounding temperature is less than 40°F (4°C) and in conditions where seals may be exposed to rain or water spray within 18 hours of application. Do not apply 3M™ Fire Barrier Mortar frost-coated surfaces or to areas that are continuously immersed in water. <b>CAUTION:</b> This product will conduct electricity when wet. DO NOT install in contact with live exposed conductors of electricity such as bus bars or on old cloth-type cable jacketing. Consult an electrician or electrical engineer. Avoid bonding 3M™ Fire Barrier Mortar to moving pipes. Wrap such pipes with a bond breaker tape. This mortar is not intended to be load bearing. For penetrations subject to foot traffic, consult a structural engineer for support requirements.

## 7. Maintenance

No maintenance is expected when installed in accordance with the applicable UL or other third-party listed system. Once installed, if any section of the 3M™ Fire Barrier Mortar is damaged, the following procedure will apply: remove and reinstall the damaged section in accordance with the applicable listed system.

## 8. Availability

3M™ Fire Barrier Mortar is available from 3M Authorized Fire Protection Products Distributors and Dealers. 3M™ Fire Barrier Mortar is available in 5 gallon pails (1/case) and 44 pound bags (1/case); off-white colored mortar mix. 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](http://www.3m.com/firestop).

## 9. Safe Handling Information

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

### Important Notice to User:

**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 and Limited Remedy:** 3M warrants that each 3M Fire Protection Product will be free from defects in material and manufacture for 90 days from the date of purchase from 3M's authorized distributor. 3M MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

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