

# 3M™ Fire Barrier Silicone Sealant 2000+

**Product Data Sheet** 

**1. Product Description** 3M° Fire Barrier Silicone Sealant 2000+ is a ready-to-use, gun-grade, one-component silicone elastomer that cures upon exposure to atmospheric humidity to form a flexible firestop seal. 3M° Fire Barrier Silicone Sealant 2000+ helps control the spread of fire, smoke and noxious gasses before, during and after exposure to a fire when installed in accordance with a listed through penetration or fire-resistive joint assembly.

3M™ Fire Barrier Silicone Sealant 2000+ firestops dynamic construction joints, blank openings and penetrations passing through fire-rated floor, floor/ceiling or wall assemblies and other fire-rated interior building construction. The sealant remains elastomeric, bonds to most common construction materials and exhibits excellent weatherability during construction. No mixing is required.



Compression/extension capabilities for dynamic joint applications

Available in: Light Gray

#### **Product Features**

- Firestop tested up to 4 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- Fire Resistance tested for construction joint systems in accordance with ASTM E 1966 (UL 2079)
- Class 25 sealant, per ASTM C 920
- Compression/extension capability of ± 13%
- Applied with conventional caulking equipment — excellent caulk rate
- Excellent weatherability upon cure
- Excellent adhesion
- Re-enterable/repairable

SOUND BARRIER

#13%
Movement
Capability

FILL, VOID OR CAVITY MATERIAL
FOR USE IN JOINT SYSTEMS AND
THROUGH-PENETHATION FRIESTOP SYSTEMS
SEE UL FIRE RESISTANCE DIRECTORY
90G9

Intertek

FIRE BARRIER

SMOKE SEAL

Meets the intent of LEED\* VOC environmental quality requirements—helps reduce the quantity of indoor air contaminants that may be odorous, irritating and harmful to the comfort and well-being of the installers and occupants. Minimizes noise transfer — STC-Rating of 56 when tested in STC 56-rated wall assembly.

**2. Applications** 3M° Fire Barrier Silicone Sealant 2000+ is a flexible firestop ideal for sealing dynamic joints in fire-rated construction. In addition, 3M° Fire Barrier Silicone Sealant 2000+ is used in mechanical, electrical and plumbing applications to firestop openings and penetrations through fire-rated floor or wall assemblies. Typical penetrants include: metallic pipe, conduit, power and communication cable and telephone or electrical wiring. 3M° Fire Barrier Silicone Sealant 2000+ is also used to firestop blank openings and static construction joints.

**3. Specifications** 3M° Fire Barrier Silicone Sealant 2000+ shall be a one-component, ready-to-use, gun-grade silicone elastomer. The sealant shall be listed by independent test agencies such as Intertek or UL. 3M° Fire Barrier Sealant 2000+ shall be tested to and pass the criteria of ASTM E 814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems, ASTM E 1966 (UL 2079) Standard Test Method for Fire Resistive Joint Systems and CAN/ULC S115 Standard Method of Fire Tests of Firestop Systems. 3M° Fire Barrier Sealant 2000+ shall meet the requirements of the IBC, IRC, IFC, IPC, IMC, NFPA 5000, NEC (NFPA 70) and NFPA 101.

#### **Typically Specified Divisions**

Division 7

Section 07 84 00 – Firestopping

#### **Related Sections**

Section 07 84 16 — Annular Space Protection

Section 07 84 43 — Fire-Resistant Joint Sealants

Section 07 86 00 — Smoke Seals

Section 07 87 00 — Smoke Containment Barriers

Section 07 92 13 — Elastomeric Joint Sealants

Section 07 92 19 — Acoustical Joint Sealants

Section 07 27 00 — Thermal and Moisture Protection Firestopping

Section 21 00 00 — Air Barriers

Section 22 00 00 — Plumbing

Section 26 00 00 — Electrical



### 4. Performance & Typical Physical Properties

Colors Available:Light GrayApplication Temperature Range:-20° to 122°F (-29° to 50°C)Service Temperature Range:-40° to 302°F (-40° to 150°C)STC (ASTM E 90 and ASTM E 413):56 when tested in STC 56 rated wall assemblySurface Burning (ASTM E 84):Flame Spread 0, Smoke Development 0

Volume: 10.3 fl. oz tube (304.8cc, 18.6 in.3), 4.5 gal. pail (17,034.4cc, 1,039.5 in.3)

Extension/compression capability:	± 13%
Hardness (ASTM D 2240 Shore A):	40
Tensile Strength:	350 psi (0.59 MPa)
VOC Less H <sub>2</sub> O and Exempt Solvents	<32 g/L
Elongation at Break (ASTM D 412):	500%

Cure: Under typical cure rate conditions of 75°F (23°C) and 50% R.H., sealant becomes tack-free in about 90 minutes. Full cure depends upon ambient conditions and volume of sealant. Typical cure rate is approximately 1/8 inch (3.18mm) per day.

### 5. Packaging, Storage, Shelf Life

**Packaging:** Product packaged in cartridge or pail is enclosed in HDPE plastic containers.

Storage: 3M<sup>™</sup> Fire Barrier Silicone Sealant 2000+ should be stored indoors in dry conditions between 40°F and 90°F (4°C and 32°C).

Avoid repeated freeze / thaw exposures of the 3M<sup>™</sup> Fire Barrier Silicone Sealant 2000+ while still in the packaging.

Shelf Life: Shelf life of 18 months from date of packaging when stored below 90°F (32°C) in original, unopened containers.

## 6. Installation Techniques

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

**Preparatory Work:** The surface of the opening and any penetrating items should be cleaned to allow for the proper adhesion of the 3M<sup>®</sup> Fire Barrier

Silicone Sealant 2000+. Do not use alcohol to clean surfaces (recommended cleaning solvents are mineral spirits, xylene, toluene or methyl ethyl ketone (MEK). Ensure that the surface of the substrates are not wet and are frost free. Sealant can be installed with

a standard caulking gun, pneumatic pumping equipment or it can be easily applied with a putty knife or trowel.

Installation Details: Install the applicable depth of backing material, if required, as detailed within the applicable UL, Intertek or other third-party

listed system. Cut the end of the tube spout to achieve the desired bead width when applying. Install the applicable depth of 3M° Fire Barrier Silicone Sealant 2000+ 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 5 minutes. Clean all tools

immediately after use with mineral spirits, xylene, toluene or methyl ethyl ketone (MEK).

**Limitations:** Do not apply 3M<sup>™</sup> Fire Barrier Silicone Sealant 2000+ under the following conditions: when surrounding temperature is greater

than 122°F (50°C), when surfaces are wet or frost-coated, in unvented spaces where sealant is not exposed to atmospheric moisture, in areas where abrasion or physical abuse of the sealant are likely and/or where painting of sealant is required (Note: once applied, sealant may be exposed to intermittent water — exhibits excellent weatherability when fully cured). Do not apply 3M° Fire Barrier Silicone Sealant 2000+ to polycarbonates or to building materials that bleed oil, plasticizers or solvent (e.g.

impregnated wood, oil-based sealants, or green or partially vulcanized rubber).

Note: In confined cure conditions, there may be discoloration of brass, copper or other sensitive metals.

**7. Maintenance** No maintenance is expected when installed in accordance with the applicable third-party listed system. Once installed, if any section of the 3M° Fire Barrier Silicone Sealant 2000+ is damaged, the following procedure will apply: remove and reinstall the damaged section in accordance with the applicable listed system, with a minimum 1/2 in. (12.7mm) overlap onto the adjacent material.

**8. Availability** 3M° Fire Barrier Silicone Sealant 2000+ is available from 3M Authorized Fire Protection Products Distributors and Dealers in the following sizes: 10.3 fl. oz. cartridges (12/case) and 4.5 gallon pails (1/case). 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 Material Safety Data Sheet (MSDS) prior to handling and disposal.



Building and Commercial Services Division

3M Center, Building 223-2N-21 St. Paul, MN 55144-1000 USA 1-800-328-1687 www.3M.com/firestop Important Notice to User:

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