



2000 Silicone Sealant

Product Data



FILL, VOID OR CAVITY MATERIALS
CLASSIFIED BY
UNDERWRITERS LABORATORIES, INC.®
FOR USE IN THROUGH-PENETRATION FIRESTOP
SYSTEMS.
SEE CURRENT UL FIRE RESISTANCE DIRECTORY.
84HM
MADE IN USA

1. Product Description

3M Fire Barrier 2000 Silicone Sealant (Nonslump) is a ready-to-use, gun-grade, one-component silicone elastomer. It cures upon exposure to atmospheric humidity to form a flexible seal.

3M Fire Barrier Sealant firestop openings and penetrations through floor slabs, walls and other fire-related building partitions and assemblies. 3M Fire Barrier Sealant, when installed properly, will control the spread of fire before, during and after exposure to open flames.

3M Fire Barrier 2000 Silicone

Sealant Features

The sealant remains elastomeric and is weather resistant. It will bond to most common construction materials.

- Superior adhesion
- Compression/extension recovery of ± 40 percent of original joint width
- Re-enterable/repairable
- Excellent weatherability
- Provides up to a 4-hour fire-rating
- Maximum pipe size of 24 inches (609,6 mm)
- Cures upon exposure to atmospheric humidity
- Applied with conventional caulking gun

2. Applications

A.

Ideal for sealing simple penetrations such as around metallic or glass pipes and conduits to control the spread of fire. Helps limit the spread of noxious gas, smoke and water. Maintains the integrity of fire-rated construction. The sealant is designed for use in fire-rated control and isolation joints.

Primary sealing applications:

- Telephone and electric wires
- Cables and cable trays
- Electrical conduit (metal)
- Pipes (steel, copper and glass)

Nonpenetrated opening applications:

- Control joints
- Isolation joints
- Blank openings

B. Limitations

3M Fire Barrier 2000 Silicone Sealant should not be applied to:

- Polycarbonates
- Building materials that bleed oils, plasticizers or solvents (e.g., impregnated wood, oil-based caulks, green or partially vulcanized rubber)
- Unvented spaces where sealant is not exposed to atmospheric moisture
- Wet or frost-coated surfaces
- Areas that are continuously damp or immersed in water
- "Yellow" brass (high zinc, 34 to 37 percent zinc)
- Painted surfaces

3. Physical Properties

Product	Unit	Volume	Units/Ctn.	Wt./ctn.
				Lbs.
Fire Barrier 2000 Silicone Sealant	10.3 fl. oz. (304,6ml)	18.6 cu. in. (304,7cm ³)	12	13.9 (6,3 kg)
	4.5 gallon (17,0L)	1040.0 cu. in. (0,017 m ³)	1	55.5 (25,1 kg)

4. Specification

Product

The firestopping sealant is a one-component, ready-to-use, gun-grade, silicone elastomer. The sealant shall be listed by independent test agencies such as UL or FM and be tested to, and pass the criteria of, ASTM E814 Fire Test, tested under positive pressure. It shall comply with the requirements of the NEC (NFPA-70), BOCA, ICBO, SBCCI and NFPA Code #101.

The sealant meets joint movement performance ratings of ASTM Specification 920, Type S, Grade NS, Class 25, Use T, NT, M, G, A and O.

Typically Specified Divisions

Division 7 07270	Thermal and Moisture Protection Firestopping
Division 13 13900	Special Construction Fire Suppression and Supervisory Systems
Division 15 15250 15300	Mechanical Mechanical Insulation Fire Protection
Division 16 16050	Electrical

5. Performance

A. Typical Physical Properties

	2000 <u>Non-slump</u>
<u>As Supplied</u>	
MIL-S-8802 Flow, Sag or Slump	Nil
Working Time, minutes	< 30
Color	Light Gray
Full Cure and Adhesion at 77°F (25°C), days	14-21
CTM 364 Extrusion Rate, g/min	100

As Cured – After 21 Days at 77°F (25°C) and 50% R.H.

ASTM D 2240 Durometer, Shore A	15
Shore 00	—
ASTM D 412 Elongation at Break, percent	1200

*Contact 3M for current sales specifications.

B. Firestopping Properties

Meets the criteria of ASTM E814 Fire Test, tested under positive pressure. Consult current UL Fire Resistance Directory for systems listed under 3M Product 2000 Silicone Sealant.

6. Installation Techniques

Shown are examples of UL classified applications of 3M 2000 Silicone Sealant. Additional drawings and details are available through your 3M Authorized Fire Protection Products Distributor.

Do not use alcohol to clean surfaces in the penetration. Alcohol can keep sealant from curing properly. Recommended cleaning solvents are

mineral spirits, xylene, toluene or methyl ethyl ketone (MEK). Follow the manufacturer's precautions when handling solvents.

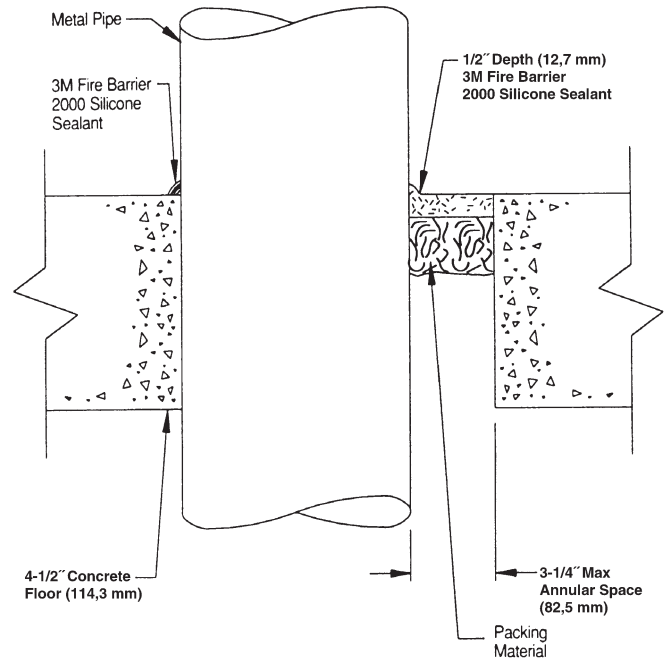
Installation Notes:

- Clean surfaces of the opening and all penetrating items to allow proper adhesion of firestop materials.
- Install damming materials as necessary to contain firestop materials while they cure.

- Install required amount of fire-rated fill materials such as mineral wool or ceramic board.
- Install the proper amount of 3M Fire Barrier 2000 Silicone Sealant to obtain the specified, 1-, 2-, 3- or 4-hour fire rating.

1. Metal pipe/conduit applications through nominal 24 inch (609,6mm) outside diameter.

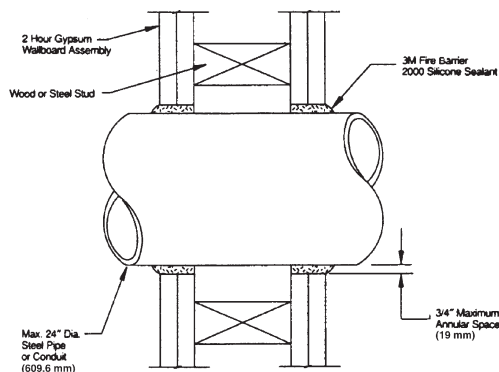
- Minimum 1/2 inch (12,7mm) depth of 2000 Silicone Sealant is required.
- Maximum annular space allowable is 3-1/4 inches (82,5mm).
- Packing material is a minimum 3-inch (76,2 mm) depth of 4 pcf mineral wool.
- Concrete floor thickness is a minimum 4-1/2 inches (101,6mm).



Complete document includes system/application pages.

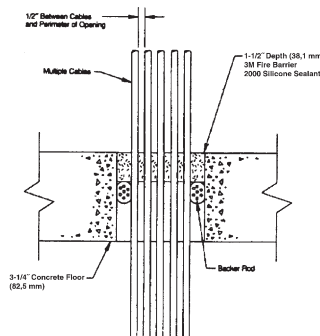
2. Metal pipe/conduit applications for 2 hour rated gypsum wallboard assemblies.

- Minimum 1-1/4 inch (31,7mm) thickness of 2000 Silicone Sealant is required plus inch thick bead at the pipe/wall interface.
- A nominal 3/4 inch (19,1mm) annular space is required.
- Maximum pipe size is 24 inches. (609,6 mm)



3. Insulated cable applications.

- All cases require a minimum of 1-1/2 inches (38,1mm) depth of 2000 Silicone Sealant.
- Common building materials such as backer rod, may be used for insulated cable applications
- Maximum five 7/C No. 12 AWG PVC insulation with PVC jacket allowed with 1/2 inch (12,7mm) between cables and perimeter of opening.
- Concrete thickness must be a minimum 3-1/4 inches (82,5mm).



Complete document includes system/application pages.

7. Maintenance

3M Fire Barrier 2000 Silicone Sealant is stable under normal storage conditions. Cartridges have a one year shelf life. Pails have a six month shelf life. Normal stock and stock rotation are recommended. **Store below 90°F (32°C) for maximum shelf life.**

8. Availability

3M Fire Barrier 2000 Silicone Sealant is available from 3M Authorized Fire Protection Products Distributors and Dealers.

9. Safe Handling Information

Consult Material Safety Data Sheet prior to handling and disposing of 3M Fire Barrier 2000 Silicone Sealant.

Warranty and Limited Remedy.

This product will be free from defects in material and manufacture for a period of ninety (90) days from date of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If this 3M product is proved to be defective within the warranty period stated above, your exclusive remedy and 3M's sole obligation shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product.

Limitation of Liability. Except where prohibited by law, 3M will not be liable for any loss or damage arising from the use of this 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.



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