

3M™ Fire Barrier Water Tight Sealants 1000 NS and 1003 SL

Product Data Sheet

1. Product Description

3M™ Fire Barrier Water Tight Sealants 1000 NS and 1003 SL are ready-to-use, single component, neutral cure, silicone sealants that cure upon exposure to atmospheric humidity to form a flexible firestop seal. 3M™ Fire Barrier Water Tight Sealants help 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 Water Tight Sealant 1000 NS is a non-slump firestop used primarily on vertical surfaces while 3M™ Fire Barrier Water Tight Sealant 1003 SL is a self-leveling firestop ideal for floor applications. These firestop sealants also meet UL Water Leakage Test, W Rating — Class 1 requirements for systems tested and listed in accordance with ANSI/UL 1479. Both products are elastomeric, are ready-to-use and exhibit excellent weatherability.



1000 NS and 1003 SL ■ Light Gray

Product Features

- Firestop tested up to 3 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC-S115
- Joint System Fire Resistance tested in accordance with ASTM E 1966 (UL 2079) & CAN/ULC-S115
- Meets UL Water Leakage Test, W Rating — Class 1 requirements
- Compression/extension capability of $\pm 31\%$
- Excellent adhesion
- Re-enterable/repairable
- Excellent weatherability upon cure
- Paintable with primer
- Helps minimize sound transfer*
- Halogen-free, low VOC**
- Excellent caulk rate — applied with conventional caulking equipment

High-performance silicone sealant provides a barrier against fire, water and sound

*Minimizes noise transfer — STC-Rating of 56 when tested in STC 56-rated wall assembly.

**Complies with the intent of LEED® NC-EQ Credit 4.1 for Low-Emitting Materials: Adhesives and Sealants, contains <250 g/L VOC contents (less H₂O and exempt solvents per SCAQMD Rule 1168).

2. Applications

3M™ Fire Barrier Water Tight Sealant 1000NS and 3M™ Fire Barrier Water Tight Sealant 1003SL are used to firestop blank openings, dynamic and static construction joints and the following penetrating items that pass through fire-rated floor or wall assemblies: metallic pipes, non-metallic pipes, cables, cable tray, insulated pipes, combos and other miscellaneous mechanical penetrations. For vertical firestop applications use 3M™ Fire Barrier Water Tight Sealant 1000 NS (non-slump) and for horizontal applications use 3M™ Fire Barrier Water Tight Sealant 1003 SL (self-leveling).

3. Specifications

3M™ Fire Barrier Water Tight Sealant 1000 NS and 1003 SL are ready-to-use, single component, neutral cure, non-slumping (1000 NS) or self-leveling (1003 SL), silicone sealants. The sealants shall be listed by independent test agencies such as UL, ULC, Intertek or FM. 3M™ Fire Barrier Water Tight Sealants 1000 NS and 1003 SL 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, CAN/ULC-S115 Standard Method of Fire Tests of Firestop Systems. These sealants shall meet UL W-Rating Class 1 requirements for watertightness. 3M™ Fire Barrier Water Tight Sealant 1000 NS and 1003 SL shall meet the requirements of NEC (NFPA 70), IBC, IRC, NBCC, NFPA 101 and NFPA 5000.

Typically Specified MasterFormat (2004)

Section 07 84 00 – Firestopping

Related Sections

Section 07 27 00 – Air Barriers
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 21 00 00 – Fire Suppression
Section 22 00 00 – Plumbing
Section 23 00 00 – Heating, Ventilating and Air Conditioning (HVAC)
Section 26 00 00 – Electrical

FIRE BARRIER UP TO 3 HOUR Fire Protection	SMOKE SEAL L RATED Meets Air Leakage Requirements
SOUND BARRIER STC 56 In SRC 56-rated Wall Assembly	ELASTOMERIC ±25% Movement Capability
WATER BARRIER CLASS 1W Rating UL Water Leakage	
CLASSIFIED UL	
FILL, VOID OR CAVITY MATERIAL FOR USE IN JOINT SYSTEMS AND THROUGH-PENETRATION FIRESTOP SYSTEMS SEE UL FIRE RESISTANCE DIRECTORY 8R57	
LISTED Intertek FIRESTOP SYSTEMS SEE INTERTEK DIRECTORY	ULC LISTED FILL, VOID OR CAVITY MATERIALS 8R57

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



4. Performance & Typical Physical Properties

Color:	Light Gray	Hardness (ASTM C 66 Shore A):	20–25 (1000 NS) 10–15 (1003 SL)
Elongation at Break (ASTM D 412):	600%	Tensile Strength:	85 psi (0.59 MPa)
Service Temperature Range:	-60°F to 300°F (-51°C to 149°C)	VOC Less H₂O and Exempt Solvents:	< 250g/L
STC (ASTM E 90 and ASTM E 413):	56 when tested in STC 56 rated wall assembly	Cure: Under typical cure rate conditions of 77°F (25°C) and 50% R.H., sealant becomes tack-free in about ten minutes, dry-to-touch in 30 to 60 minutes and obtains full-cure adhesion in 14–21 days. Full cure depends upon ambient conditions and volume of sealant. Typical cure rate is approximately 1/8 inch (3mm) per day.	
Surface Burning (ASTM E 84 Mod):	Flame Spread 0, Smoke Development 0		

Unit Volume: 10.1 fl. oz. tube (298.7cc, 18.2 in.³), 20 fl. oz. sausage (591.5cc, 36.1 in.³), 4.5 gal. pail (.017m³, 1039.5 in.³)

Meets the intent of LEED® VOC environmental quality requirements.

5. Packaging, Storage, Shelf Life

Packaging:	Product packaged in cartridge or pail is enclosed in HDPE plastic containers, sausage is packaged in aluminum foil wrap.
Storage:	3M™ Fire Barrier Water Tight Sealants 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™ Fire Barrier Water Tight Sealants while still in the packaging.
Shelf Life:	3M™ Fire Barrier Water Tight Sealant 1000 NS and 1003 SL shelf life is 18 months in original unopened containers from date of packaging when stored between 40°F and 90°F (4°C and 32°C). Normal stock rotation is recommended. Lot numbering: First to sixth digit = Date of Production (MMDDYY), Seventh indicator = dash symbol (-), Eighth digit = shift number

6. Installation Techniques

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

Preparatory Work:	The surface of the opening and any penetrating items should be clean and free of dirt and debris to allow for the proper adhesion of 3M™ Fire Barrier Water Tight Sealant. Do not use alcohol to clean surfaces in penetration or joint opening, instead use a commercial solvent such as 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, cUL, ULC, Intertek or other third-party listed system. Cut the end of the 3M™ Fire Barrier Water Tight Sealant tube spout to achieve the desired beadwidth. Install the applicable depth of 3M™ Fire Barrier Water Tight Sealant into the opening flush with the surface of the substrate, or as detailed within the applicable listed system, at the required depth for the assembly and rating that is specified. Tool within 5 minutes. Clean all tools immediately after use with a commercial solvent such as mineral spirits, xylene, toluene or methyl ethyl ketone (MEK).
Limitations:	Do not apply 3M™ Fire Barrier Water Tight Sealants 1000 NS or 1003 SL (Note: once applied, sealant may be exposed to intermittent water — exhibits excellent weatherability when fully cured) 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. Do not apply 3M™ Fire Barrier Water Tight Sealants 1000 NS or 1003 SL 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 should be required when installed in accordance with the applicable UL, Intertek, FM or other third-party listed system. Once installed, if any section of the 3M™ Fire Barrier Water Tight Sealant 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 Water Tight Sealant 1000 NS and 1003 SL are available from 3M Authorized Fire Protection Products Distributors and Dealers in 10.1 fl. oz. cartridges (12/case), 20.0 oz. sausages (12/case) and 4.5 gallon pails (1/case); light gray-colored sealant. For additional technical and purchasing information regarding 3M Fire Protection Products, please call: 1-800-328-1687 or visit www.3M.com/firestop.

9. Safe Handling Information

Consult product Safety Data Sheet (SDS) prior to handling and disposal.



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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. **Limitation of Liability:** Except where prohibited by law, 3M 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.

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