



FireDam™ Spray 200

Technical Data

1. Product Description

3M™ FireDam™ Spray 200 is a sprayable water-based material, that dries to form a tough, elastomeric coating. This material when used as part of an assembly is intended to firestop building joints, perimeter joints (curtain wall), and through penetration seals. 3M FireDam Spray 200, when installed properly, helps control the transmission of fire, heat, and smoke before, during, and after exposure to fire.

3M FireDam Spray 200 Features

- Two color options — dark gray or red
- Superior adhesion to most construction materials
- Highly elastic — material maintains performance with compression/extension of up to ±50% of nominal joint width
- STC rating of 56 STC rated wall assembly
- Broad range of applications—extensive portfolio of tested and listed building and perimeter joint systems
- Applied with conventional airless spray equipment
- Robust job site formula
 - Freeze/thaw resistant
 - Uniform seal formation in hot and cold drying conditions
- Improved spraying for sag resistance, uniform coating build properties — stays where it's sprayed
- Consistent spray patterns
- Paintable when cured
- Easy water clean up
- Improved coverage to maintain proper coating thickness

2. Applications

Ideal for sealing building joints, through penetration seals, and perimeter joints. Helps limit the spread of noxious gas, smoke and water. Maintains the integrity of the fire rated construction.

3. Physical Properties

3M ID No.	Unit	Volume	Quantity	Color
98-0400-5587-7	5 Gallon (18.9 liter)	1155.0 in. ³ (18926.9 cm. ³)	1	Dark Gray
98-0400-5598-5	5 Gallon (18.9 liter)	1155.0 in. ³ (18926.9 cm. ³)	1	Red

4. Specifications

This coating is tested and listed by independent test agencies UL, Intertek and Factory Mutual. The coating meets current requirements of the International Building Code (IBC), NFPA 5000 and NFPA 101.

Building Joints: Have been fire tested and evaluated under the pass/fail criteria of ASTM E 1966 and UL 2079 as the maximum extended joint width.

Perimeter Joints: Have been fire tested and evaluated under the pass/fail criteria of ASTM E 2307 as the maximum extended joint width.

Penetration Seals: Have been fire tested and evaluated under the pass/fail criteria of ASTM 814 and UL 1479 Standard Method for Through Penetration Firestops.

Typically Specified Divisions

Division 07—Thermal and Moisture Protection

078400	Firestopping
078413	Penetration Firestopping
078416	Annular Space Protection
078443	Fire Resistive Joint Sealants
078553	Building Perimeter Firestopping
078600	Smoke Seals
079213	Elastomeric Joint Sealants
079219	Acoustical Joint Sealants

5. Performance

A. Typical/Physical Properties

Color:	Dark Gray or Red
Non-Volatile Content:	65%
Viscosity:	120,000 cps with shear thinning
Coverage*:	12.8 sq. ft./gallon (0.31 sq. m/liter)
Flash Point:	None
ASTM E 84:	Flame Spread <25 Smoke Developed Index <50
Dry Time:	<4 hour to tack free @ 70°F (21°C)/50% R.H. <24 hours fully dry
STC Rating:	56 when installed in a 56 STC rated wall assembly

*The coverage rate listed is calculated coverage based on 1/8 in. (3mm) thick wet coating.

B. Firestopping Systems

Building Joints—Underwriters Laboratories

BW-S-0008, HW-D-0020, HW-D-0021, HW-D-0022, HW-D-0023, HW-D-0029, HW-D-0030, HW-D-0031, HW-D-0038, HW-D-0040, HW-D-0101, HW-D-0122, HW-D-0123, HW-D-0192, HW-D-0248, HW-D-0265, HW-D-0376, HW-D-0379, HW-D-0384, HW-D-0385, HW-D-0447, HW-D-0465, HW-D-0478, HW-D-0479, HW-D-0552, HW-D-1010, HW-D-1059, FF-D-0002, FF-D-0014, FF-D-1042, FW-D-0004, FW-D-0011, FW-D-1040

Penetration Seals—Underwriters Laboratories

C-AJ-1275, C-AJ-8106, W-L-8033, W-L-8034

Perimeter Joints—Underwriters Laboratories

CW-D-2055, CW-S-2004, CW-S-2005, CW-S-2007

Perimeter Joints—Intertek

CEJ 113 P, CEJ 114 P, CEJ 115 P, CEJ 116 P, CEJ 119 P, CEJ 120 P, CEJ 121 P, CEJ 122 P, CEJ 123 P, CEJ 124 P, CEJ 125 P, CEJ 126 P, CEJ 158 P, CEJ 159 P, CEJ 160 P, CEJ 161 P, CEJ 162 P, CEJ 163 P, CEJ 164 P, CEJ 165 P, CEJ 166 P, CEJ 167 P, CEJ 168 P, CEJ 169 P, CEJ 234 P, CEJ 238 P, CEJ 266 P, CEJ 267 P, CEJ 288 P, CEJ 289 P, CEJ 311 P, CEJ 312 P, CEJ 313 P, CEJ 350 P, CEJ 370 P, CEJ 371 P, CEJ 372 P

C. Firestopping Code Requirements

International Building Code

702	Definitions
712	Penetrations
713	Fire Resistant Joint Systems
713.3	Exterior Curtain Wall/Floor Intersection

NFPA 5000

8.8	Penetrations
8.9	Joints
8.9.3	Exterior Walls and the Perimeter Joint

NFPA 101 Life Safety Code

8.3.5	Penetrations
8.3.6	Joints
8.4.4	Penetrations
8.4.5	Joints
8.5.6	Penetrations
8.5.7	Joints

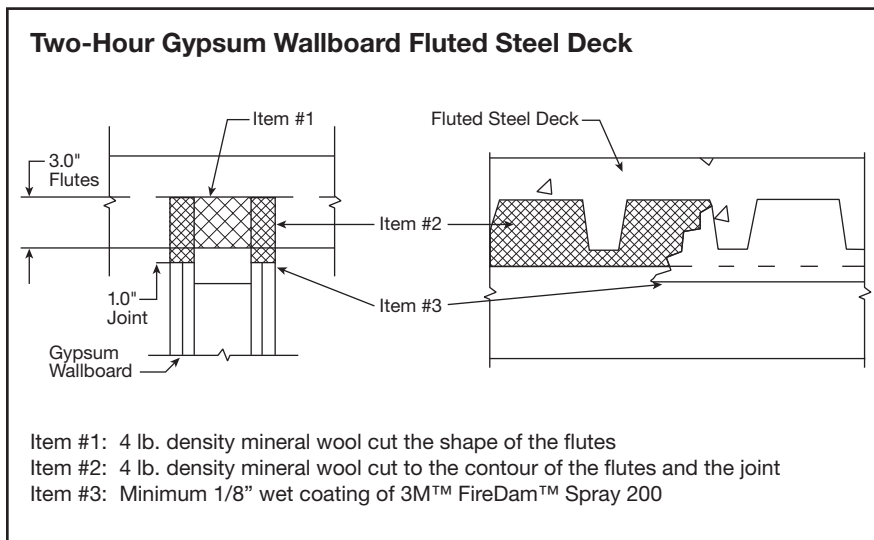
NFPA 70 National Electric Code

300-21 Firestopping

6. Installation Techniques

Shown is an example of a UL tested and listed system for 3M™ FireDam™ Spray 200. The appropriate tested and listed system must be used for each application. Additional details are available through your 3M Authorized Fire Protection Products Distributor or sales representative.

- 1. Surface Preparation:** Surfaces must be frost free, clean, dry and dust free.
- 2. Insulation:** Cut minimum 4 lb. density mineral fiber insulation to the contour of the joint adding 25% to each dimension so that the mineral fiber insulation can be tightly packed into the joint. The mineral fiber insulation should be flush with the face of the wall assembly.
- 3. Coating:** Apply the 3M FireDam Spray 200 using an airless sprayer to the joint overlapping onto the wall and floor a minimum 1/2 in. (13mm). A minimum 1/8 in. (3mm) wet coating should be applied over the mineral fiber insulation and substrates. 3M FireDam Spray 200 must be applied at a temperature between 40°F (4°C) and 110°F (43°C). 3M FireDam Spray 200 can be applied when the ambient air temperature is 10°F (-12°C) or higher. It is recommended that the pails of product remains in heated storage at 70°F (21°C) prior to spraying material in conditions below 40°F (4°C).



3M FireDam Spray 200 can be applied to surfaces that are 10°F (-12°C) or higher providing that the surfaces are frost free, clean, dry and dust free.

The drying (evaporating of water) of the 3M FireDam Spray 200 is affected by the ambient temperature and humidity. The lower the temperatures and the higher the humidity, the slower the 3M FireDam Spray 200 will dry. At 70°F (21°C) and 50% R.H. a 1/8 in. thick wet coating is fully dried in 24 hours. **Note:** At temperatures below 32°F (0°C), no drying of the 3M FireDam Spray 200 will occur until the temperature of the installed product is above 32°F (0°C).

7. Spray Equipment

These procedures are intended to inform end users of the equipment requirements for properly dispensing 3M FireDam Spray 200 and achieving the thickness and coverage necessary to comply with the tested systems for the product. The equipment mentioned is not an entire list of the pumps capable of delivering the 3M FireDam Spray 200 but a sample of those known to be capable of accomplishing the desired results.

General Equipment Parameters

Flow Output: 0.7 gpm minimum
Liquid Pressure: 2000 psi minimum
Recommended Tip Size:
419 (8 in. fan with 0.019 in. orifice) which
can be changed on application conditions
Motor Size: Minimum 0.75 horsepower

Recommended Equipment

Wagner:
SprayTECH® EPX2355, EPX2400, EPX2510
Graco:
Ultra®Max 1095 and 1595
Titan:
840ix and 1140ix

Equipment Start-Up

If the spray equipment has been used previously and has residual or wash of a previous product, then purge the machine, hoses, and gun prior to spraying, as follows:

- Have a 5 gallon pail filled with clean water. This will be needed for clean up at the end of the application.
- Turn the pump on in prime (re-circulating) mode. The pump should have a large and small tube. The large tube is the primary material pick-up tube, and the small tube is the re-circulating tube.
- With the pump in prime mode, place large pick up tube in the pail of clean water, leaving the small re-circulating tube out of the pail.
- As the pump primes, water will be pushed out of the system. Pump this water into another collection container. Continue to do this until a complete flow of clean water solution is attained.
- Place the re-circulating tube into the pail of clean water solution.
- Turn down the pressure for the pump.
- Change the pump from prime to spray mode.
- Increase the pressure for the pump to the operating pressure.
- Depress the trigger of the spray gun and hold open until clean water solution only comes out of the gun. Release the trigger of the spray gun.

- Turn down the pressure for the pump and turn the pump back into re-circulating mode and place the large pick up tube into a pail of 3M FireDam Spray 200 while holding the small re-circulating tube aside into another empty collection container.
- Increase the pump pressure and prime the pump. As the pump primes, you will pump a clean water solution, then a combination of 3M FireDam Spray 200 and clean water solution and finally just 3M FireDam Spray 200.
- Change the pump to spray mode and depress the spray gun trigger, holding open until just 3M FireDam Spray 200 is being sprayed.
- The equipment is now ready for use in application.

Equipment Clean-up/Shutdown

To clean up the gun, hoses and spray machine several clean plastic 5 gallon pails and a brush will be needed.

- Turn off the pump, place the pump into re-circulating mode and remove both tubes from the pail of 3M FireDam Spray 200. Using paper towels or a rag, wipe any excess 3M FireDam Spray 200 off the outside of the pick up and re-circulating tube.
- Place the large pick up tube into a clean 5 gallon pail of clean water and turn on the pump, while holding the re-circulating tube out of the clean water solution to collect in a separate container.

- As the machine primes, 3M FireDam Spray 200 will be pushed out of the system first, then a combination of 3M FireDam Spray 200 and water solution and, finally, just clean water.
- Place the re-circulating tube into the container with clean water and allow the machine to re-circulate for several minutes.
- Turn down the pressure to the pump.
- Switch the pump to the spray mode and turn the pressure back up to the operating pressure.
- Depress the spray gun trigger to purge the spray line of 3M FireDam Spray 200, then a 3M FireDam Spray 200 and water solution, then just a clean water solution. Collect this waste for proper disposal.
- Continue to run the pump until a minimum 5 gallons of clean water has been pushed through the system.
- If the pump will not be used for several days, an additional 5 gallons of clean water should be re-circulated through the pump system for an additional 10 minutes.
- Use a small brush to clean the spray gun and tip.
- Follow all pump manufacturer's recommendations for maintenance and storage.

8. Maintenance

3M™ FireDam™ Spray 200 is stable under normal storage conditions. The product has a 12 month shelf life when stored at the recommended temperature in the original, unopened container. Store at 40°F to 90°F (4°C to 32°C) for maximum shelf life. Normal stock and stock rotation are recommended. Higher temperatures can reduce shelf life.

9. Purchase Information

3M FireDam Spray 200 is available for 3M Authorized Fire Protection Distributors. For information on where to buy, go to www.3M.com/firestop or call (800) 328-1687.

10. Safe Handling Information

Consult Material Safety Data Sheets 26-1817-1 (Gray) and 26-2541-6 (Red) prior to handling and disposing of 3M FireDam Spray 200.

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 damages 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.

Important:

The information provided in this report is believed to be reliable; however, due to the wide variety of intervening factors, 3M does not warrant that the results will necessarily be obtained. All details concerning product specifications and terms of sale are available from 3M.



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