

3M Fire Protection Products



Confidence Even Under Fire



Principalproducts

Our understanding of the spread of fire, smoke and toxic gases help us to offer preventative and affordable firestopping solutions

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Passive Fire Protection Specialists

3M

Fire Protection Products

3M

Protecting Lives for More Than 30 Years

In 1974, the movie *Towering Inferno*[†] sparked the imagination of Richard Licht, a 3M product developer who passionately believed 3M technologies could be used to improve the safety of multi-story buildings. Several devastating fires — including the 1980 MGM Grand Hotel fire that killed 84 people and injured 679 — inspired Licht to develop the first firestop products based on existing 3M intumescent technology.

Recognized by many as “one of the fathers of firestopping,” Licht also helped develop some of the first firestop requirements in commercial building codes. He worked tirelessly to make the codes more progressive to improve the safety of all buildings.

[†] Produced by Irwin Allen

3M Firestopping Progress & Trends

As an industry leader, 3M drives technologies that enable lower cost building solutions. For instance, 3M intumescent technology enabled the use of plastic pipes that were previously banned in commercial buildings due to their combustible nature — providing a cheaper, easy-to-install solution for electrical conduits and plumbing lines.

From Understanding Your Needs to Providing the Solution





Leadership You Can Trust

3M is proud to be the industry leader in firestopping. Our dedication to stringent testing and code developments help make buildings safer today than they were even 10 years ago. And when that dedication is backed by a brand as powerful as 3M, you get what you would expect — proven reliability and outstanding service.

The construction industry is increasingly moving toward easy-to-use firestop solutions. That's why 3M, in its leadership role, provides cutting-edge and fully integrated systems. These systems are designed to help you efficiently construct safer buildings that help protect lives and property.

The majority of 3M's firestopping innovations are tested online in the company's own UL and Intertek certified fire-test center. By testing these systems in job-specific conditions, 3M can more effectively provide fire protection solutions that meet current industry needs.

Comprehensive fire protection includes fire detection, fire containment and fire suppression. 3M Fire Protection Products address fire containment and are an integral part of a well-designed fire protection system. Our understanding of the spread of fire, smoke and toxic gases helps us continue to create preventative and affordable firestopping solutions.

Building designs and uses continue to evolve, and so too must 3M firestop technology. For example, in buildings where telecommunication cables are constantly being upgraded, the 3M™ Fire Barrier Pass-Through Device allows for re-enterability and helps keep cables organized and protected.

From time-tested fire barrier sealants to today's innovative firestop devices and duct wraps, 3M scientists work to develop solutions to firestop virtually anything on a building site. With over 100 products and almost 1,000 tested approved systems, 3M has the most complete program for all your firestopping needs.





3M™ Fire Barrier CP 25WB+ Sealant

Product Description

3M Fire Barrier CP 25WB+ Sealant is a premium elastomeric latex caulk designed for use as a one-part fire, smoke, noxious gas and water sealant. In addition, the unique intumescent property of this material (expands when heated) means that as cable insulation is consumed by fire, CP 25WB+ Sealant expands to maintain the penetration seal.

CP 25WB+ Sealant features superior adhesion strength, caulk rate and no-sag application plus a halogen-free formula.

3M Fire Barrier CP 25WB+ Sealant can be installed with a standard caulking gun, pneumatic pumping equipment or it can be easily applied with a putty knife or trowel. CP 25WB+ Sealant will bond to concrete, metals, wood, plastic and cable jacketing. No mixing is required. CP 25WB+ Sealant offers excellent performance achieving Fire Resistance Ratings of up to 4 hours.



Product Features

- Water Based: Easy clean up, no special handling, routine disposal
- Intumescent: Expands when heated to seal around items consumed by fire
- Endothermic: Absorbs heat energy, releases chemically bound water
- Thixotropic: Will not sag or run in overhead or vertical applications
- Halogen-free
- Fast dry: Tack-free in approximately 10-15 minutes
- Paintable: (Best results obtained after 72 hour cure.)
- Minimal shrinkage
- Reddish Brown colour
- Water seal: Seals against inadvertent water spills in the unexpanded state
- High caulk rate: 1000 g/min. with 6mm (1/4") nozzle
- Point contact allowed
- Testing in accordance with AS1530.4, EN1366, and ASTM E814 (UL Listed).
- Assessed in accordance with AS4072.1 – 2005
- EWFA Report No: RIR 23263

Physical Properties

Typical Physical Properties	
Tack Free Time (ASTM C679-87)	10 to 15 minutes @ 22°C (72°F)
Continuous operating temperature	Up to 48°C (120°F)
Expansion at 350° C (662°F)	2.0-3.0
Expansion at 540°C (1000°F)	3+
Colour	Reddish Brown
Density	1.35 kg/L (11.2 lb/gal)
Adhesion	Very good on all construction substrates
Application	Caulk guns, trowel, spatula, pressurized pumps
Durometer Hardness (Shore A)	70
Solids	79% by weight
VOC	0% by weight
Odour	Pleasant non-irritating
Flow Rate	1000 grams/min. from 6.35 mm (1/4") nozzle at 50 psi
ASTM E 84: Flame Spread	5
Smoke Development	0
Boeing Flow (Sag Characteristics)	0

Availability

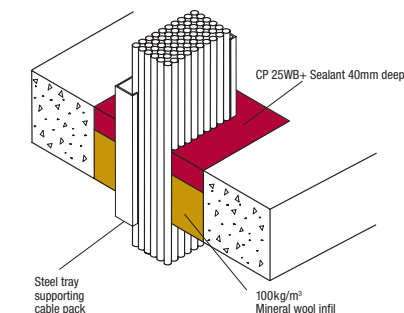
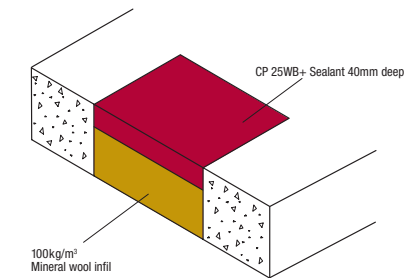
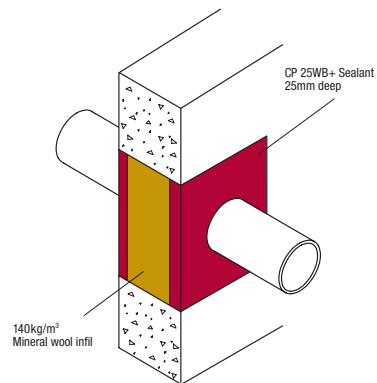
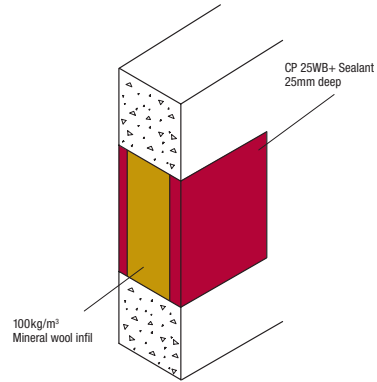
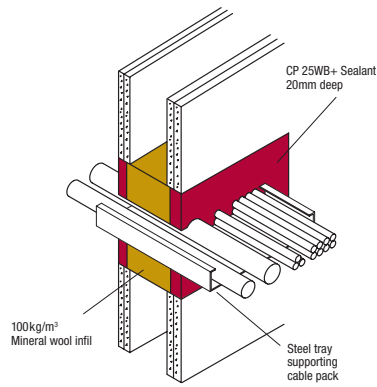
3M™ Fire Barrier CP 25WB+ Sealant is available from Authorized 3M Fire Protection Products Distributors.

3M Order Code	Packing	Unit/Case
98040054565	300 ml (10.1 fl.oz.) cartridge	12
98040053831	594 ml (20 fl. oz.) sausage	10
98040053823	802 ml (27 fl. oz.) cartridge	6
98040053807	7.6 litre (2 gallon) pail	1
98040053815	19 litre (5 gallon) pail	1

Maintenance

CP 25WB+ Sealant is stable under normal storage conditions and has a one year shelf life. Normal stock and stock rotation are recommended.

Recommended: Store between 4°C (40°F) & 32°C (90°F) for maximum shelf life. Keep from freezing.



Installation Techniques:

Installation Techniques: Walls

Electrical Cables, Blank (unpenetrated) Seals

- Install 100kg/m³ mineral wool infill friction fitted and centred in the penetration. Ensure that enough space is left on either side of the mineral wool for the CP 25WB+ Sealant.
- Install CP 25WB+ Sealant to a depth of 20mm for electrical cables and 25mm for blank unpenetrated seals on both sides of the wall. Ensure that the Sealant is installed flush with the wall on both sides of the penetration.

Metal Pipes

- Install 140kg/m³ Mineral Wool infill friction fitted and centred in the penetration. Ensure that enough space is left for the CP 25WB+ Sealant.
- Install CP 25WB+ Sealant to a depth of 25mm on both sides of the wall, ensure that the Sealant is installed flush with the wall on both sides of the penetration.

Installation Techniques: Floors

Electrical Cables, Blank (unpenetrated) Seals

- Install 100kg/m³ mineral wool infill friction fitted into the floor slab, the bottom of the mineral wool should be flush with the bottom surface of the floor slab. Ensure that enough space is left above the mineral wool for the CP 25WB+ Sealant.
- Install CP 25WB+ Sealant to a depth of 40mm on the top side of the floor slab only; ensure that the Sealant is installed flush with the top surface of the floor slab.

Performance Specifications for Installers

Australian Standard FRLs		Fire Resistance Level (FRL)				
3M Fire Barrier System	Building Element	Blank (Unpenetrated) Seal	PVC Insulated Cables, Cable trays and Cable bundles	Copper or Steel Pipes Small 15mm diameter or smaller 0.9mm wall thickness or thicker	Steel Pipes Small 34mm diameter or smaller 3.5mm wall thickness or thicker	Steel Pipes Large 114mm diameter or smaller 4.5mm wall thickness or thicker
3M CP 25WB+ Sealant	Floor: Concrete slab. <i>Minimum 120mm thickness</i>	-/180/120	-/120/30	—	—	—
	Wall: Plasterboard Dry Wall, solid masonry, hollow masonry or concrete construction. <i>Minimum 116mm thickness</i>	-/120/120	-/120/30	—	—	—
	Wall: Plasterboard Dry Wall. <i>Minimum 150mm thickness</i>	-/120/120	-/120/30	-/120/30	-/120/30	-/120/-
	Wall: Solid masonry, hollow masonry or concrete construction. <i>Minimum 150mm thickness</i>	-/240/180	-/120/30	-/240/30	-/240/30	-/240/30

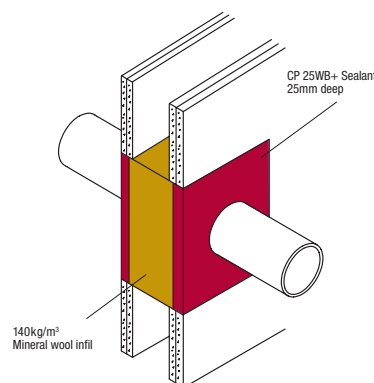
In order to achieve the above FRLs you must ensure that the CP 25WB+ Sealant is installed as per the Installation Techniques and the building element you are installing into has an FRL performance equal to or better than that of the CP25 WB+ system. The Installation Techniques can be found on the final page of this document.

What does FRL mean?

FRL stands for 'Fire Resistance Level'. For example, an FRL of '-/240/30' indicates:

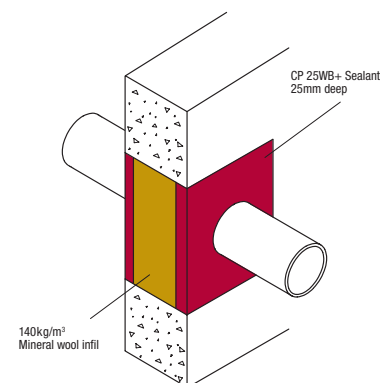
- **Structural Adequacy.** The first dash '-' indicates that CP 25WB+ is non load bearing
- **Integrity.** The middle number '240' indicates for how many minutes the CP 25WB+ system can resist the passage of flames and hot gasses
- **Insulation.** The last number '30' indicates how many minutes it takes the unexposed face to heat up by more than 140°C.

Metal Pipes



Dry Wall 150mm

Copper: 15mm dia, 0.91mm wall: FRL: -/120/30
Steel: 34mm dia, 3.5mm wall: FRL: -/120/30
Steel: 114mm dia, 4.5mm wall: FRL: -/120/-



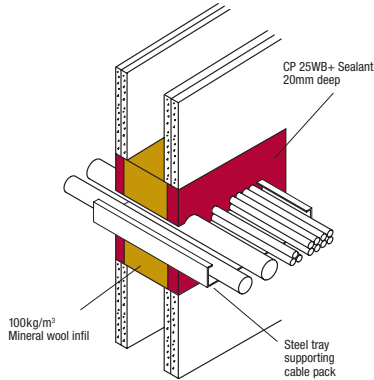
Solid Masonry, Hollow Masonry or Concrete Wall 150mm

Copper: 15mm dia, 0.91mm wall: FRL: -/240/30
Steel: 34mm dia, 3.5mm wall: FRL: -/240/30
Steel: 114mm dia, 4.5mm wall: FRL: -/240/30

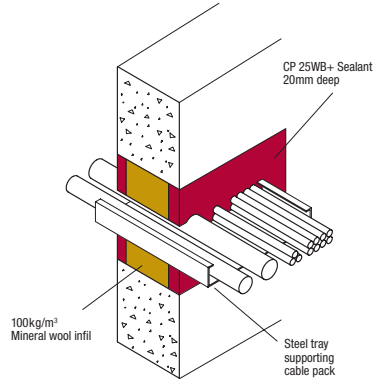
Performance Specifications for Engineers and Specifiers

3M Fire Barrier CP 25WB+ Sealant has been tested in accordance with AS1530.4-2005 and assessed in accordance with AS4072.1-2005 under BWA Report No: 23263. The following illustrations provide a summary of the test results for D1 and D2 cable configurations, metal pipe penetrations and blank unpenetrated seals with CP 25WB+ installed as per the Installation Techniques. Specifications for standard D1 and D2 cable configurations can be found in AS1530.4-2005 Appendix D.

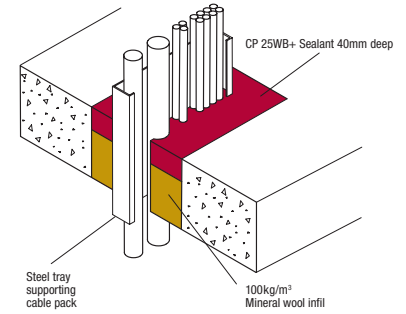
D1 Cable Pack – Power Transmission Cables.



Dry Wall 116mm – FRL: -/120/30

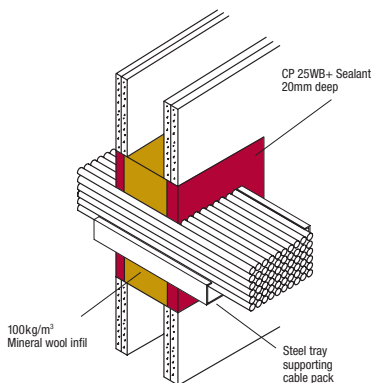


Solid Masonry, Hollow Masonry or
Concrete Wall 116mm – FRL: -/120/30

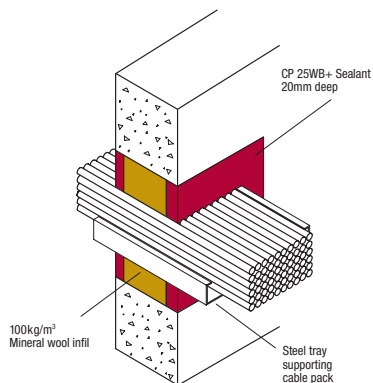


Concrete Floor 120mm – FRL: -/120/30

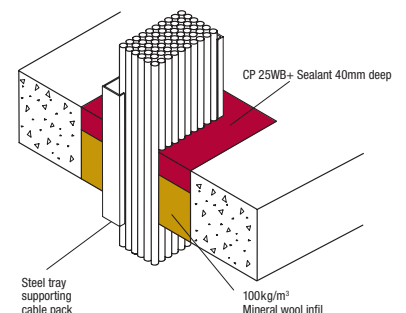
D2 Cable Pack – Telecom Cables.



Dry Wall 116mm – FRL: - /120/30

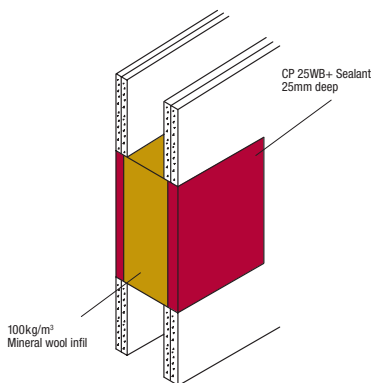


Solid Masonry, Hollow Masonry or
Concrete Wall 116mm – FRL: -/120/30

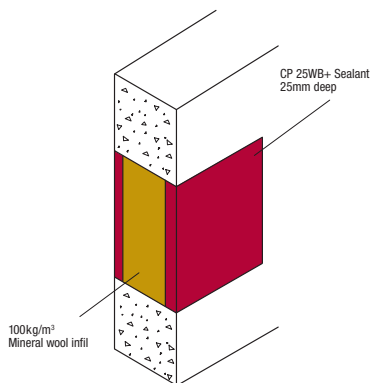


Concrete Floor:
120mm - FRL: -/120/30
150mm - FRL: -/180/30

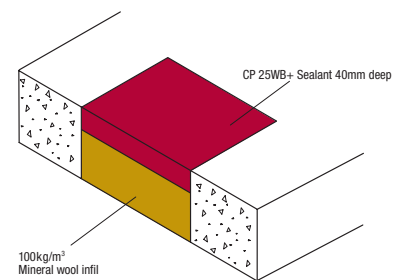
Blank Openings (unpenetrated)



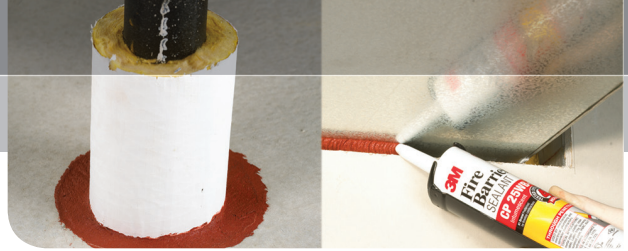
Dry Wall 116mm – FRL: -/120/120



Solid Masonry, Hollow Masonry
or Concrete Wall:
116mm - FRL: -/120/120
150mm - FRL: -/240/180
170mm - FRL: -/240/240



Concrete Floor:
120mm - FRL: -/180/120
150mm - FRL: -/180/180



3M™ Fire Barrier Sealant CP 25WB+

Product Data Sheet

1. Product Description

3M™ Fire Barrier Sealant CP 25WB+ is a high-performance, ready-to-use, gun-grade, latex-based, intumescent sealant that dries to form a monolithic fire-stop seal that also acts as a barrier to airborne sound transmission. 3M™ Fire Barrier Sealant CP 25WB+ 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 system.

3M™ Fire Barrier Sealant CP 25WB+ firestops blank openings and penetrations passing through fire-rated floor, floor/ceiling or wall assemblies and other fire-rated interior building construction. The unique intumescent property of this material allows 3M™ Fire Barrier Sealant CP 25WB+ to expand and help maintain a firestop penetration seal for up to 4 hours as penetrants are exposed to fire. 3M™ Fire Barrier Sealant CP 25WB+ exhibits excellent adhesion to a full range of construction substrates and penetrants. No mixing is required.

Product Features

- AS1530.4-2005 and AS4072.1.2005
- Firestop tested up to 4 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- Fire Resistance tested for static construction joint systems in accordance with ASTM E 1966 (UL 2079)
- Re-enterable / repairable
- Meets UL 1479 aging requirements
- Helps minimize sound transfer*
- Applied with conventional caulking equipment (excellent caulk rate)
- Extensive listed systems
- Sag-resistant
- Halogen-free
- Excellent adhesion
- Paintable
- Water clean up



High-performance firestop sealant that also helps minimize sound transfer

Product Color: ■ Red

Meets the intent of LEED® VOC regulations—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. <250 g/L VOC contents (less H₂O and exempt solvents).

**Minimizes noise transfer—STC-Rating of 54 when tested in STC 54-rated wall assembly.*

2. Applications

High-performance 3M™ Fire Barrier Sealant CP 25WB+ is ideal for sealing single or multiple through penetrations in fire-rated construction. 3M™ Fire Barrier Sealant CP 25WB+ is typically used in mechanical, electrical and plumbing applications to firestop openings created by the following penetrations in fire-rated floors, floor/ceilings or walls: metallic pipe, plastic pipe (excluding CPVC), conduit, power and communication cable, cable trays, busways, combos, insulated pipe and HVAC duct penetrations. 3M™ Fire Barrier Sealant CP 25WB+ is also used to firestop blank openings and static construction joints.

3. Specifications

3M™ Fire Barrier Sealant CP 25WB+ shall be a one component, ready-to-use, gun-grade, latex-based, intumescent firestop sealant capable of expanding a minimum of 3 times its dried volume when exposed to temperatures above 1000°F (538°C). The material shall be thixotropic and shall be applicable to overhead, vertical and horizontal firestops. The sealant shall be listed by independent test agencies such as UL, Intertek or FM. 3M™ Fire Barrier Sealant CP 25WB+ 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 CP 25WB+ meets the requirements of the IBC, IRC, IFC, IPC, IMC, NFPA 5000, NEC (NFPA 70) and NFPA 101.

Typically Specified Division

Division 7
Section 07 84 00 – Firestopping

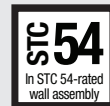
Related Sections

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 27 00 – Air Barriers
Section 21 00 00 – Fire Suppression
Section 22 00 00 – Plumbing
Section 26 00 00 – Electrical

FIRE BARRIER SMOKE SEAL



SOUND BARRIER



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



LISTED
FILL, VOID OR CAVITY MATERIALS
90G9



SUBJECT TO THE CONDITIONS OF APPROVAL AS A WALL & FLOOR PENETRATION FIRESTOP WHEN INSTALLED AS DESCRIBED IN THE CURRENT EDITION OF THE FMRC APPROVAL GUIDE

LISTED



Intertek

FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY

LISTED



Intertek

FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY

4. Physical Properties

Color:	Red
Application Temperature Range: (ASTM C 1299)	40° to 122°F (4° to 50°C)
Service Temperature Range:	-20° to 180°F (-28° to 82°C)
STC (ASTM E 90 and ASTM E 413):	54 when tested in STC 54-rated wall assembly
Surface Burning (ASTM E 84):	Flame Spread 0 Smoke Development 0

Hardness (ASTM D 2240 Shore A):	45
Tensile Strength:	85 psi (0.59 MPa)
Volume Shrinkage (ASTM C 1241):	28%
VOC Less H₂O and Exempt Solvents:	<1 g/L

Dry: Under typical conditions of 75°F (23°C) and 50% R.H., sealant becomes tack-free in about ten minutes and dry-to-touch in 30 to 60 minutes. Full dry depends upon ambient conditions and volume of sealant. Typical dry rate is approximately 1/8 inch (3 mm) per day.

Unit Volume: 10.1 fl. oz tube (298.7 mL, 18.2 in.³), 20 fl. oz. sausage (591.5 mL, 36.1 in.³), 27 fl. oz tube (798.5 mL, 48.7 in.³), 2 gal. pail (7.57 L, 462 in.³), 5 gal. pail (18.9 L, 1155 in.³)

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 Sealant CP 25WB+ should be stored indoors in dry conditions between 40°F and 90°F (4°C and 32°C) in the original unopened package. Avoid repeated freeze / thaw exposures of the 3M™ Fire Barrier Sealant CP 25WB+ prior to installation.
Shelf Life	3M™ Fire Barrier Sealant CP 25WB+ shelf life is 12 months in original unopened containers from date of packaging when stored above 68°F (2°C). 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 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™ Fire Barrier Sealant CP 25WB+. 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, FM or other third-party listed system. Cut the end of the 3M™ Fire Barrier Sealant CP 25WB+ tube spout to achieve the desired bead width when applying. Install the applicable depth of 3M™ Fire Barrier Sealant CP 25WB+ 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 water.
Limitations	Do not apply 3M™ Fire Barrier Sealant CP 25WB+ 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 Sealant CP 25WB+ to building materials that bleed oil, plasticizers or solvent (e.g. impregnated wood, oil-based sealants, or green or partially vulcanized rubber). Do not apply 3M™ Fire Barrier Sealant CP 25WB+ to wet or frost-coated surfaces or to areas that are continuously damp or immersed in water.

NOTICE: This product is not acceptable for use with chlorinated polyvinylchloride (CPVC) pipes.

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 Sealant CP 25WB+ 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. (12.7 mm) overlap onto the adjacent material.

8. Availability

3M™ Fire Barrier Sealant CP 25WB+ is available from 3M Authorized Fire Protection Products Distributors and Dealers. 3M™ Fire Barrier Sealant CP 25WB+ is available in 10.1 fl. oz. cartridges (12/case), 20.0 fl. oz. sausages (10/case), 27.0 fl. oz. cartridges (6/case), 2 gallon pails (1/case) and 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's Material Safety Data Sheet (MSDS) prior to handling and disposal.

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.