

3M™ Fire Barrier Plenum Wrap 5A+

Product Data Sheet



1. Product Description

3M™ Fire Barrier Plenum Wrap 5A+ is a flexible fire-resistant wrap consisting of an inorganic fiber blanket encapsulated with a scrim-reinforced foil. The product is 1/2 in. (12.7 mm) thick, 6pcf¹ density and provides a flexible, non-combustible enclosure for cables and pipes in return air plenums. When properly installed, this flexible wrap helps reduce external flame propagation and smoke generation. This non-asbestos² wrap installs easily because of its high flexibility and strength.



Product Features

- Strong, lightweight and flexible material for easy installation
- Tested to ASTM E 84, NFPA 262 (UL 910) and UL 1887
- Foil encapsulated scrim
- Non-asbestos wrap

1 In accordance with the tolerances in ASTM C 892 Standard Specification for High-Temperature Fiber Blanket Thermal Insulation.

2 Has been demonstrated to be soluble in the lungs according to EU guideline 97/69/EG, for biopersistence.

2. Applications

3M™ Fire Barrier Plenum Wrap 5A+ is used on cables and on PVC, CPVC, PB, PE, PP, PVDF and ABS pipe in plenum spaces. The 3M Fire Barrier Plenum Wrap 5A+ is a protective covering which helps reduce the flame propagation and smoke generation of pipes and cables. Use on single and multiple 1-inch diameter (25.4 mm) and larger plastic pipe and cable bundles.

3. Codes & Test Standards

3M™ Fire Barrier Plenum Wrap 5A+ has been tested in accordance with the following:

ASTM E 84	Standard Test Method for Surface Burning Characteristics of Building Materials
NFPA 262 (UL 910)	Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces
UL 1887	Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics
ASTM E 136	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C

3M™ Fire Barrier Plenum Wrap 5A+, when installed per applicable third-party tested Design Listings, can help to satisfy the following code requirements:

International Mechanical Code® 2003/2006/2009 - Section 602 'Plenums'

Uniform Mechanical Code 2003/2006/2009 - Section 602 'Combustibles within Ducts or Plenums'

4. Specifications

Installation shall be in strict accordance with manufacturer's written instructions, as shown on the approved shop drawings. 3M™ Fire Barrier Plenum Wrap 5A+ shall be a high-temperature fiber blanket thermal insulation encapsulated in a fiberglass-reinforced aluminum foil. Plenum Wrap density shall be nominal 6 pcf (96 kg/m³) and have a nominal 1/2 inch (12.7 mm) thickness. The fiber blanket shall have a continuous use limit in excess of 1832°F (1000°C). Flame Spread Index and Smoke Developed Index of the foil encapsulated blanket shall be <25 / <50.

Typically Specified Division

Division 7

Section 07 21 00 – Thermal Protection

Related Sections

Section 07 21 16 – Blanket Insulation

Section 23 32 00 – Air Plenums and Chases



4. Performance & Typical Physical Properties

Scrim Color:	Aluminium with Red Text
Blanket Color:	White
Weight:	0.3 lbs./ft. ² (1.46 kg/m ²)

	Surface Burning Characteristics			Flame Spread Index	Smoke Spread Index
	Flame Spread (ft.)	Max.	Avg.		
NFPA 262 (formerly UL 910)	1.4	0.056	0.010	N/A	N/A
UL 1887	0.0	0.0	0.002	N/A	N/A
ASTM E 84 (mod.)	N/A	N/A	N/A	0	5

5. Packaging, Storage, Shelf Life

Packaging	Product in cardboard box.
Storage	3M™ Fire Barrier Plenum Wrap 5A+ should be stored indoors in dry conditions. Pallets should not be stacked.
Shelf Life	Product has an indefinite shelf life when stored in a dry warehouse environment. Not impaired by freezing.

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. System integrity is limited by quality of installation.

Preparatory Work

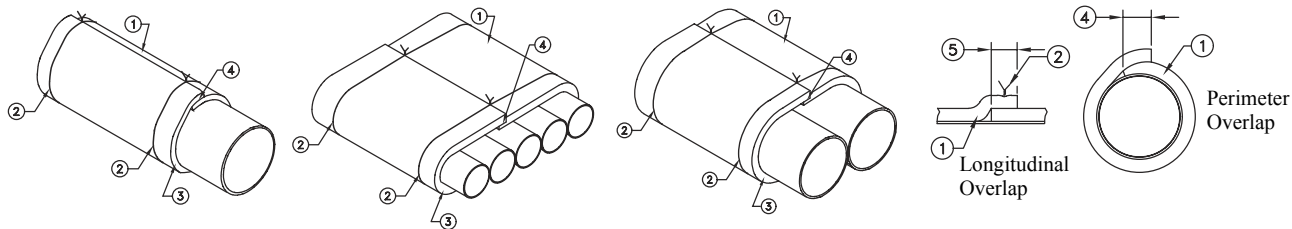
The surface of any wrapped items should be cleaned. The following additional items/materials are required for product installation: min. 3/4 in. (19 mm) wide Scotch® Filament Tape 898 (or equivalent), 3M™ FSK Facing Tape 3320 (or equivalent), min. 1/2 in. (12.7 mm) wide x min. 0.015 in. (0.38 mm) thick carbon steel or stainless steel banding material with steel banding clips or 16 gauge steel tie wire as alternate for banding, banding tensioner, crimping tool, and banding cutter.

Installation Details

Cut 3M™ Fire Barrier Plenum Wrap 5A+ to a length sufficient to wrap completely around the perimeter of the pipe, plus provide an overlap of not less than 1 in. (25.4 mm). 3M™ Fire Barrier Plenum Wrap 5A+ should be completely encapsulated with no exposed fiber. Aluminum foil tape is used to seal cut edges of the blanket. To minimize waste, 3M™ Fire Barrier Plenum Wrap 5A+ material should be rolled out tautly before measuring.

Temporarily secure 3M Fire Barrier Plenum Wrap in place using filament tape. Cut the next adjacent wrap of 3M™ Fire Barrier Plenum Wrap 5A+ to completely wrap around the perimeter of the pipe with enough excess to provide an overlap of not less than 1 in. (25.4 mm). A 1 in. (25.4 mm) longitudinal overlap is required onto the previous adjacent wrap. Once 3M™ Fire Barrier Plenum Wrap 5A+ is in place, permanently fasten the wrap with either steel banding or steel tie wire.

1. Min. 1 layer 3M Fire Barrier Plenum Wrap
2. Tie wire or banding
3. Aluminum foil tape to seal edges
4. Perimeter overlap
1 in. min. (24.5 mm)
5. Longitudinal overlap
1 in. min. (24.5 mm)



7. Maintenance

No maintenance is expected when installed using the above installation procedures in accordance with an applicable third-party listed system. Cosmetic damage to the scrim can be patched with 3M™ FSK Facing Tape 3320 (or equivalent). Once installed, if any section of the 3M™ Fire Plenum Wrap 5A+ is damaged so that the blanket is damaged, the following procedures will apply: The damaged section should be removed by cutting the steel banding or removing the clips holding it in place. A new section of the same dimension should be cut from a roll of 3M™ Fire Barrier Plenum Wrap 5A+. The new section should be placed and fitted ensuring the same overlap that existed previously. The steel banding should be placed around the material and tensioned so as to sufficiently hold the 3M™ Fire Barrier Plenum Wrap 5A+ in place.

8. Availability

3M™ Fire Barrier Plenum Wrap 5A+ is available from 3M Authorized Fire Protection Products Distributors and Dealers in (3M ID# 98-0400-5591-9) 1/2 in. x 24 in. x 50 ft. roll, 1/case (12.7 mm x 61 cm x 15.2 m) and (3M ID# 98-0400-5592-7) 1/2 in. x 48 in. x 25 ft. roll, 2/case (12.7 mm x 122 cm x 15.2 m). 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 country-of-use 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.

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