



Interam™ Graphite Mat (Ultra GS)

Product Data



1. Product Description

3M™ Interam™ Ultra GS is a graphite based, largely inorganic, flexible, fire resistive, intumescent mat.

It is available in convenient rolls for quick and easy installation. Ultra GS is designed to firestop plastic pipe penetrations in fire-rated walls and floors and floor-ceiling assemblies.

The unique, intumescent property (expands when heated) of this material means that as penetrating items such as plastic pipe are consumed by fire, Ultra GS expands to maintain a tight seal, preventing the spread of fire, deadly smoke, and other by-products of combustion.

Ultra GS is UL classified in firestop systems for plastic pipe. See the current UL Fire Resistance Directory.

Product Features:

- Intumescent: Expands when heated to seal around items consumed by fire.
- Thermal insulator: Intumescent char provides thermal insulation to deter heat transfer of a fire.
- Smoke seal: Retards spread of toxic by-products of combustion when used in conjunction with CP 25WB+ or Moldable Putty+.
- Excellent flexibility: Conformable, cost effective installation.
- Meets performance criteria AS1530.4-2005.
- Excellent weatherability:
- Versatile: Easily cut and shaped with common tools..
- Normal Disposal procedures.

2. Applications

3M Interam Ultra GS provides a rapid and cost-effective means of sealing wall and floor penetrations where fire resistance is required.

The 3M Interam Ultra GS is used to seal ccPVC, PVC, CPVC, FRPP, PVDF, ccABS, and ABS pipes penetrating 1 and 2 hour fire rated gypsum wallboard assemblies and up to 3 hour fire rated concrete walls and floors. It may be applied to drain, waste, vent or closed pipe systems. The Ultra GS is used in conjunction with the RC-1 Restricting Collar for firestopping plastic pipe. See current UL Fire Resistance Directory for through-penetration systems.

3. Specifications

A. Product

The penetration seal must be capable of passing ASTM E-814 (ANSI/UL 1479) Standard Method of Fire Tests for Through Penetration Fire Stops up to the desired fire resistance.

B. Engineering/Architectural

All penetrations in fire-rated walls or floors shall be fitted and sealed with 3M Brand Fire Barrier Products in accordance with the manufacturer's installation instructions.

Performance

A. Physical Properties

Color: Gray/Black

B. Roll Size: 1/8" x 2" x 40' (3 mm x 5,08 cm x 12,1 m)

Heat Expansion (Intumescence):

Expansion begins.....410°F (210°C)

Significant expansion.....555°F (290°C)

Free expansion.....25 times (5 min @ 662°F [350°C])

C. Weatherability (Tested to ASTM G23 and G53)

Test Condition	Time	After Exposure
Temperature/Humidity 90°F (32°C)/90%	120 Days	No change in expansion

D. Surface Burning Characteristics (ASTM E-84, UL 723)

Flame spread index 0

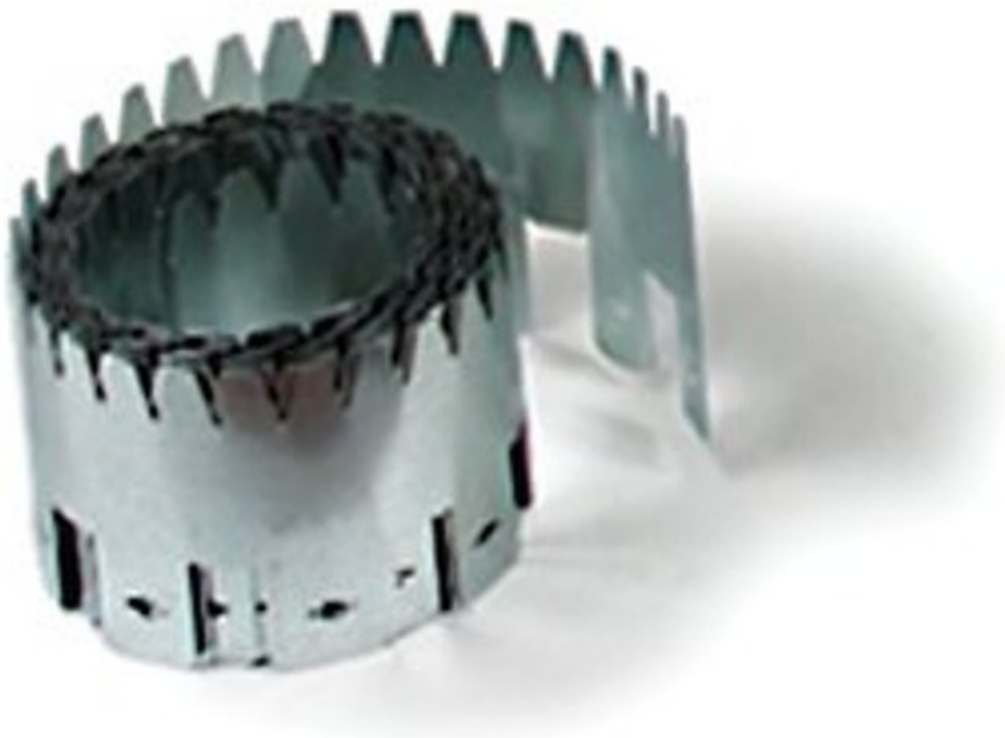
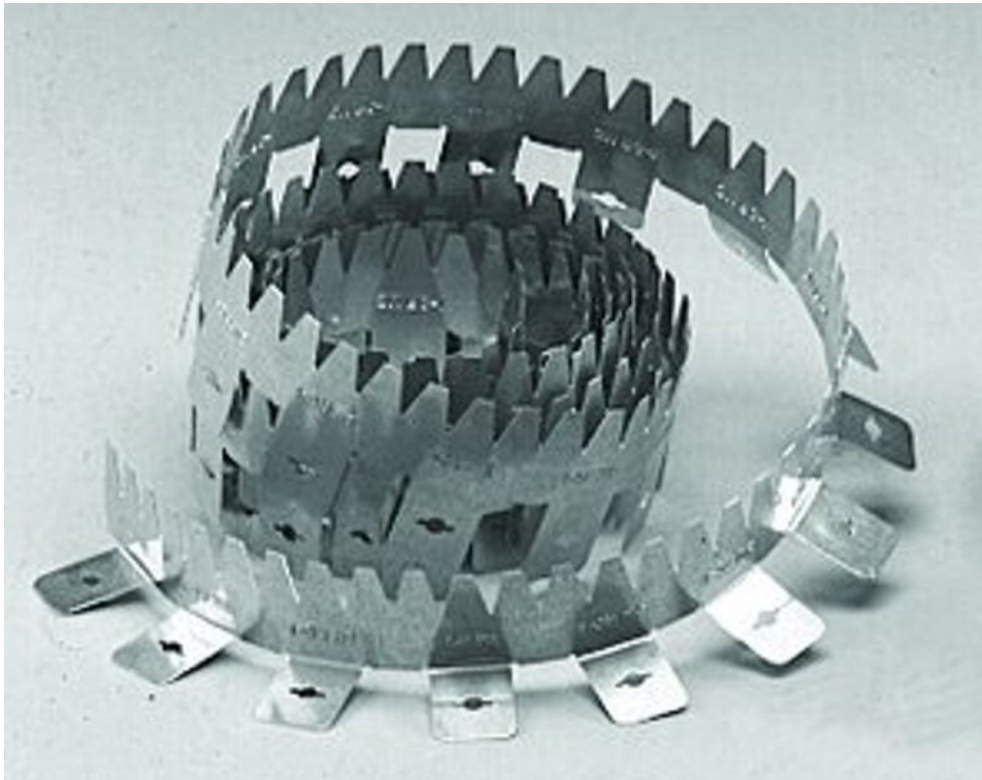
Smoke development index 5

Important Notice to Purchaser:

LIMITATIONS OF REMEDIES AND LIABILITY: If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M SHALL NOT OTHERWISE BE LIABLE FOR LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, INVESTMENT, GOODWILL, OR BUSINESS OPPORTUNITY) REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE, CONTRACT, WARRANTY, OR STRICT LIABILITY.

3M

Barrier RC-1 Restricting Collar





Barrier RC-1 Restricting Collar

Product Data

This collar works in conjunction with 3M FS-195+ wrap/strip to close an opening left by a burned away pipe.

- UL-classified for use on PVC, CPVC, ABS, CCPVC, CCABS, PVDF, PP and PB plastic pipe
- Easy installation
- 28 gauge steel
- Convenient 25 ft. (7,62 m) roll
- Required for firestopping plastic pipes larger than 4 in. (101,6 mm) in diameter

Product	Size	Units Per Carton
RC-1 Restricting Collar	2 in. 25 ft. (50,8 mm x 7,62m)	1
	1 in. x 25 ft. (25,4 mm x 7,62 m)	1

Important Notice to Purchaser:

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 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.



Ultra Plastic Pipe Device



One-minute application. Three-hour protection.

The 3M™ Ultra PPD Plastic Pipe Device is the quickest, easiest firestop around. Its patent-pending, ultra fast anchoring system secures the device to most substrates without any power tools. All you need is a pliers to get up to 1-, 2- and 3-hour, UL-classified protection — in just one minute.

The one-piece metal collar assembly encases an intumescent material developed in 3M laboratories. When exposed to temperatures of 300°F (149°C) and higher, the material expands up to 25x its original volume, sealing off the plastic pipe while releasing chemically bound water to help cool it.

Less confusing. More convenient.

The 3M Ultra PPD firestops ccPVC, PVC, CPVC, FRPP, PVDF, ccABS and ABS pipes penetrating 1- and 2-hour floor/ceiling assemblies; 1-, 2- and 3-hour fire-rated gypsum wallboard assemblies; and up to 3-hour fire-rated concrete wall and floor assemblies. It may be applied to drain, waste, vent or closed-pipe systems. In short, the 3M Ultra PPD firestops most varieties of plastic pipe in gypsum and 2-1/2" (63mm) and 4-1/2" (114mm) concrete. So there's never any confusion over which type of device to use. This one versatile PPD covers them all.

The 3M Ultra PPD also has a softer intumescent material than other

conventional PPDs, so it's easier to wrap around the pipe. And it has a simplified closure system — just lock the latch and bend the tab. There's no need to apply caulk. And there's no need for power tools either, so it's especially convenient in hard-to-work areas such as on scaffolding.

Saves time. Saves money.

All this convenience and time savings means it saves you money, too. And it doesn't take long to really add up. In fact, in the time it takes to install one conventional PPD, you could have at least four 3M Ultra PPDs installed.

So get the UL-classified protection you need — in a fraction of the time — with 3M Ultra PPD.

3M™ Ultra Plastic Pipe Device

Complete application in just one minute.



Slide ultra fast anchor straps through the stamped slots of the PPD.

:00



Open Ultra PPD and fit around the pipe, then close to the first locking position.

:15



Slide anchor straps through the annular space between the pipe and the edge of the opening until they catch the opposite edge of the opening.

:30



Slide Ultra PPD flush against the substrate surface, close collar to final locking position, and bend tab over. Use pliers to pull anchor straps tight, put a half twist in them, and bend them over the PPD body.

:45



In just one minute, using only a pliers, you have up to 3-hour, UL-classified protection.

:60



NOTE: The 3M Ultra PPD is equipped for conventional anchoring, which should be used when the annular space does not allow for using the anchor straps.

Specifications

Installations shall be in strict accordance with manufacturer's written instructions, as shown on approved shop drawings. The device is also classified by Underwriter's Laboratory, Inc. as a through-penetration firestop device when testing in accordance with ASTM E 814 (UL 1479) for up to a 3-hour rating.

PPD/ Pipe size	Color	Intumescent material	Anchors per collar
1.5" (38mm)	Red	3M™ Interam™ Ultra GS	2
2" (50mm)	Red	3M™ Interam™ Ultra GS	2
3" (76mm)	Red	3M™ Interam™ Ultra GS	3
4" (101mm)	Red	3M™ Interam™ Ultra GS	4



No need to use power tools, mounting screws, washers and other fasteners that can take almost five minutes to install ...



...when you can install a 3M Ultra PPD in a fraction of the time simply by using the patented ultra fast anchor straps and a pliers.

Performance test

- Tested in accordance with 1530-4-2005
- Assessed in accordance with A.S.4072.1 – 2005
- EWFA Report No. RIR 27377
- UL tests per ASTM E 814 (UL 1479)
- UL-classified, 1-, 2- and 3- hour fire (F) and temperature (T) rating. See UL Fire Resistance Directory under Through-Penetration Firestop Device (XHCR) R9269 (N) 90G8
- Tested in accordance with AS1530-4-2005
- Assessed in accordance with AS4072.1 – 2005
- EWFA Report No : RIR 27377



Fire Barrier

Ultra PPD Plastic Pipe Device

Installation Instructions

These instructions are based on product performance per ASTM E 814 (UL 1479) fire tests. Classified for a maximum 1, 2, and 3 hour rated gypsum wallboard assemblies, 1 and 2 hour floor/ceiling assemblies and up to 3 hour concrete floors and walls by UL for through-penetration firestop device file R9269(N)90G8.

Penetration Firestop Device for 1½, 2, 3, 4 inch (38 mm, 5 cm, 7,6 cm, 10 cm) PVC, ccPVC, CPVC, ABS, ccABS, FRPP, and PVDF Plastic Pipe Through Gypsum, Concrete or Block Walls, Floor/Ceiling and Chase Wall Assemblies. For other plastic pipe types and hourly ratings, consult the current UL Fire Resistance Directory.

1. Examination

- A. Determine if PPD will fit the pipe application and determine the required number of anchors. See Table 1.
- B. Determine if the annular space between the pipe and the edge of the opening is between χ inch (3 mm) and ¼ inch (6 mm). The annular space must be χ inch (3 mm) minimum to allow the Ultra Fast Anchor Strap to slide through. See Alternate Anchor Methods Below. Also, if the annular space is greater than ¼ inch (6 mm), the PPD cannot be used. See UL Fire Resistance Directory for other applications.

- C. Review current UL Fire Resistance Directory for additional application details.

2. Alternate Anchor Methods

- A. If the annular space does not allow for using the Ultra Fast Anchor use one of the following anchor methods.
- B. Gypsum Wall or Floor/Ceiling Assemblies: Secure the PPD to the anchoring surface with steel hollow wall anchors (pullout strength 75 lbs. [16.9 N] minimum) and minimum 1¼ inch (32 mm) diameter steel

washers. Anchor all mounting tabs.

- C. Chase Wall Assemblies: Secure the PPD to the header plate with ¼ inch (6 mm) by 2 inch (5 cm) long steel screws with minimum ¾ inch (19 mm) diameter steel washers. Anchor all mounting tabs.

- D. Concrete Walls of floors: Use traditional masonry fasteners (minimum pullout strength of 75 lbs. [16.9 N]) in all anchor tabs.

3. PPD Installation Using Ultra Fast Anchor Straps (supplied separately)

- A. Assemble PPD and Ultra Fast Anchor Strap. (Figure 1)
 1. Position the PPD with anchor tabs up.
 2. Position the Ultra Fast Anchor Strap with the large end up and the spring tab facing to the outside of the PPD body.
 3. Slide the narrow end of the Ultra Fast Anchor Strap through the stamped slot in the top of body, through fire stop layers, and out bottom slot in the PPD. Install the number of straps required according to Table 1.

- B. Open the PPD and fit around the pipe. (Figure 2)

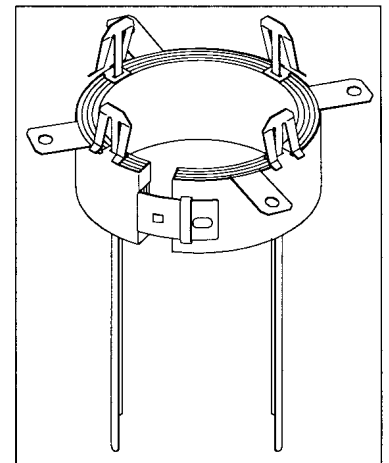


Figure 1: Assemble PPD & Ultra Fast Anchor

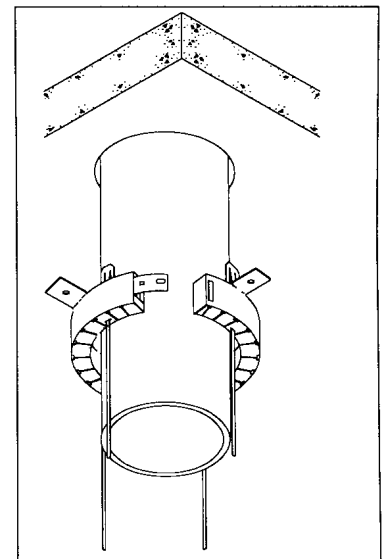


Figure 2: Open PPD and fit around pipe.

Table 1 - PPD Size and Number of Anchors

Plastic Pipe Device	Plastic Pipe Size	Number of Ultra Anchors
1½ inches (38 mm)	1½ inch (38 mm)	2
2 inches (5 cm)	2 inch (5 cm)	2
3 inches (7,6 cm)	3 inch (7,6 cm)	3
4 inches (10 cm)	4 inch (10 cm)	4

C. Close the PPD to the *first* locking position only by sliding the metal tab into the raised belt loop and position the PPD 2 inches (5 cm) from the wall or substrate surface. (Figure 3)

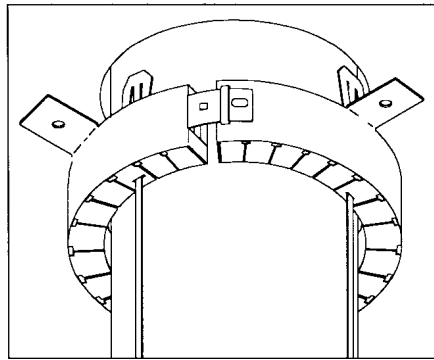


Figure 3: Close PPD to first tab and position

D. Slide the Ultra Fast Anchor Straps through the annular space between the pipe and edge of the opening until they catch the opposite edge of the opening. (Figure 4 & 8)

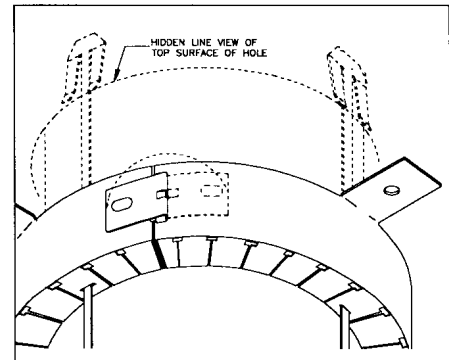


Figure 4: Slide straps through, PPD flush, lock, secure

E. Slide the PPD flush against the substrate surface and close PPD to final locking position on latch, then bend latch tab completely over to secure. (Figure 4)

F. Pull down on Ultra Fast Anchor Straps until spring tab comes in contact with opposite edge of the opening. Using pliers pull anchor strap approximately 1/2 inch (13 mm) and at the same time put a half twist in the strap and then bend the strap over the PPD body. (Figure 5)

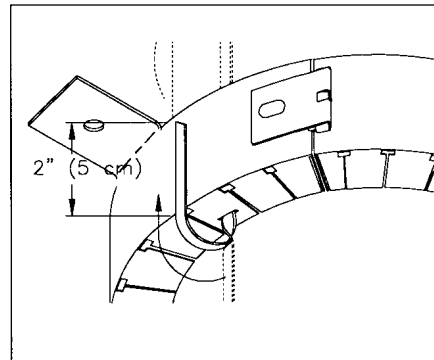


Figure 5: Pull down straps, twist and wrap around

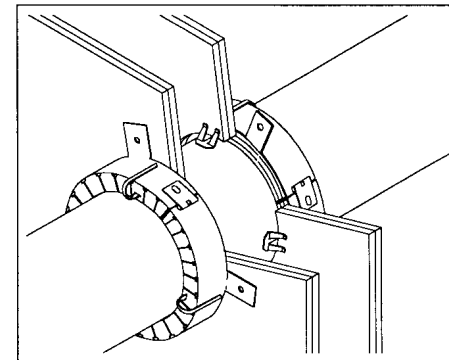


Figure 6: Gypsum wall or hollow CMU application

G. The length of excess strap will vary depending on the thickness of the substrate (ie. gypsum or hollow CMU versus solid concrete). The excess strap can be cut off if desired. Remaining strap length must be a minimum 2 inch (5 cm) after bending the strap over the PPD body. (Figure 5)

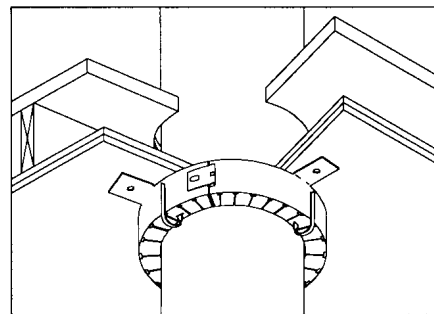


Figure 7: Gypsum floor/ceiling assembly

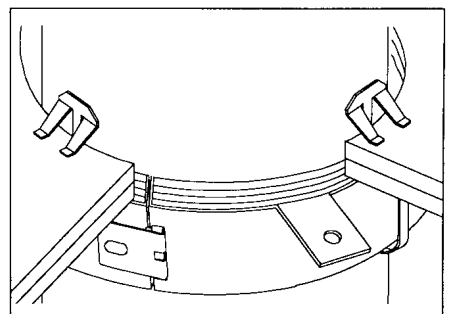


Figure 8: Top view of installed ultra fast anchor strap

4. Wall Applications

A. The PPD must be installed on both sides of a wall. Repeat the above steps to install the second PPD. (Figure 6)

B. The Ultra Fast Anchors cannot be used on solid concrete or solid block walls because the anchors will interfere with installation of the PPD on the opposite side of the wall. Instead, use traditional masonry fasteners (minimum pullout strength of 75 lbs. [16.9 N]) in all anchor tabs.

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