



3M™ Fire Barrier Moldable Putty Pads MPP+

Product Data Sheet

1. Product Description 3M™ Fire Barrier Moldable Putty Pads MPP+ are a one-part, ready-to-use, intumescent wall-opening protective. When properly applied to the back of electrical outlet boxes, 3M™ Fire Barrier Moldable Putty Pads MPP+ help control the spread of fire, smoke and noxious gases through fire-restive walls and partitions. Installed in accordance with the UL wall-opening protective listing (UL Category CLIV), the product helps achieve up to 2-hour ratings in a variety of wall constructions. 3M™ Fire Barrier Moldable Putty Pads MPP+ can effectively provide protection for back-to-back electrical boxes.

3M™ Fire Barrier Moldable Putty Pads MPP+ are also used as a firestop material in through-penetration fire-stop systems. 3M™ Fire Barrier Moldable Putty Pads MPP+ help to maintain a firestop penetration seal for up to 4 hours. 3M™ Fire Barrier Moldable Putty Pads MPP+ exhibit excellent adhesion to a full range of construction substrates and penetrants. The pads are easily molded by hand (no mixing required). In addition to its fire-resistant properties, the 1/10th in. (2.54 mm) thick pads have airborne sound reduction characteristics which helps minimize sound transmission through assemblies requiring an STC rating.

Color: ■ Dark Red

Product Features

- Firestop tested up to 4 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- Wall opening protective tested up to 2 hours in accordance with UL 263
- Provides draft and cold smoke seal
- Pliable and conformable—molds easily into required shape
- Helps reduce noise transfer*
- Excellent adhesion
- Re-enterable/repairable
- Halogen-free and solvent-free
- Excellent aging properties
- Low VOC
- Will not dry out or crumble
- Red color widely recognized as a fire protective product



4 in. x 8 in. (101.6 mm x 203.3 mm), 7 in. x 7 in. (177.8 mm x 177.8 mm) and 9.5 in. x 9.5 in. (241.2 mm x 241.3 mm) pad sizes available.

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.

**Minimizes noise transfer—STC-Rating of 52 when tested in STC 53-rated wall assembly.*

2. Applications 4 in. x 8 in. (101.6 mm x 203 mm) 3M™ Fire Barrier Moldable Putty Pads MPP+ are typically used as a wall opening protective to meet building requirements, for protection of membrane penetrations made by listed steel or non-metallic electrical boxes. It is also used to seal gaps between cables in multiple penetrations (including fiber optic inner duct) and to firestop cable bundles, insulated pipe, electrical conduit and metal pipe. Larger sized pads, 7 in. x 7 in. and 9.5 in. x 9.5 in. (177.8 mm x 177.8 mm and 241.2 mm x 241.2 mm) are widely used to firestop metallic and non-metallic electrical outlet boxes up to 14 in. x 4.5 in. by 2-1/2 in. (355.6 mm x 114.3 mm x 63.5 mm) deep. For larger applications, pads can be molded together by hand.

3. Specifications 3M™ Fire Barrier Moldable Putty Pads MPP+ shall be a one component, ready-to-use, intumescent elastomer capable of expanding a minimum of 3 times at 1000°F. The material shall be thixotropic and shall be applicable to overhead, vertical and horizontal firestops. Under normal conditions, 3M™ Fire Barrier Moldable Putty Pads MPP+ shall be noncorrosive to metal and compatible with synthetic cable jackets. The putty shall be listed by independent test agencies such as UL, Intertek or FM. 3M™ Fire Barrier Moldable Putty Pads MPP+ shall be tested to and pass the criteria of ASTM E 814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems and CAN/ULC S115 Standard Method of Fire Tests of Firestop Systems. 3M™ Fire Barrier Moldable Putty Pads MPP+ meets the requirements of the IBC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NCB (Canada) Building Codes.

Typically Specified MasterFormat (2004)

Section 07 84 00 – Firestopping

Related Sections

Section 07 84 16 – Annular Space Protection

Section 07 86 00 – Smoke Seals

Section 07 87 00 – Smoke Containment Barriers

Section 07 27 00 – Thermal and Moisture Protection Firestopping

Section 21 00 00 – Fire Suppression

Section 26 00 00 – Electrical



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



FILL, VOID OR CAVITY MATERIALS
90G9



WALL OPENING PROTECTIVE MATERIAL FIRE RESISTANCE CLASSIFICATION SEE UL FIRE RESISTANCE DIRECTORY 90G9



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



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:	Dark Red	STC (ASTM E 90, ASTM E 413):	52 when tested on back-to-back electrical boxes
Nominal Density:	10-12 lbs./gal. (1.2-1.45 kg/l)	VOC Less H₂O and Exempt Solvents:	<250 g/L
Nominal Thickness:	1/10 in. (2.54 mm)		
Surface Burning (ASTM E 84):	Flame Spread 0, Smoke Development 0		
Heat Expansion:	Begins @ 350°F (177°C), Significant @ 400°F (204°C) Free Expansion is Nominal 3 times		
Dimensions:	4 in. x 8 in. x 1/10 in. (101.6 mm x 203.2 mm x 2.5 mm)	7 in. x 7 in. 1/10 in. (177.8 mm x 177.8 mm x 2.5 mm)	9.5 in. x 9.5 in. 1/10 in. (241.3 mm x 241.3 mm x 2.5 mm)
Unit Volume:	2.52 in. ³ (41.4 cm ³)	4.63 in. ³ (76.0 cm ³)	6.1 in. ³ (139.8 cm ³)
Unit weight:	2.7 oz (76 g)	4.1 oz (76 g)	7.6 oz (215 g)

5. Packaging, Storage, Shelf Life

Packaging	Corrugated cardboard box with liner between individual pads.
Storage	3M™ Fire Barrier Moldable Putty Pads MPP+ should be stored indoors in dry conditions.
Shelf Life	3M™ Fire Barrier Moldable Putty Pads MPP+ shelf life is indefinite in original unopened containers. Product will not dry or crumble in opened containers. Normal stock and stock rotation practices are recommended.

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 electrical box, or opening and any penetrating items should be cleaned (i.e. free of dust, grease, oil, loose materials, rust or other substances) to allow for the proper adhesion of the 3M™ Fire Barrier Moldable Putty+ Pad. Ensure that the surface of the substrates are not wet and are frost-free.
Installation Details	Electrical boxes must be firestopped under the following conditions: boxes larger than 16 sq. in. (103 sq. cm), if horizontal spacing between boxes is less than 24 in. (609.6 mm), when multiple boxes are located in one stud cavity or if the aggregate area of all boxes exceeds 100 sq. in. per 100 sq. ft. (645 sq. cm. per 9.29 sq. m) - refer to listed system details and applicable local building code requirements. For electrical box installations, a minimum of 1/10 in. (2.5 mm) thick putty application is required, 3M™ Fire Barrier Moldable Putty Pads MPP+ are to be installed to completely cover the exterior of the outlet box (except for the side against the stud). To firestop penetrations, install the applicable depth of backing material (if required), remove the desired amount of putty from the pad, form (if necessary) and install as detailed within the listed system. Make sure that putty is in complete contact with the substrate and penetrating item(s). Note: Partial pads can be pieced together and the seams between partial pads should overlap a minimum of 1/8 in. with the seams worked with the fingertips to create adhesion at the seam.
Limitations	Over application (i.e. using excessive amount of material) of product to vertical surfaces may cause sagging, follow system details. Product is not impaired by freezing but should be warmed to 32°F (0°C) before applying.

7. Maintenance

No maintenance is expected 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 Moldable Putty Pad MPP+ is damaged, the following procedure will apply: remove damaged putty, clean the affected area and install the proper thickness of putty, ensuring it bonds to the substrate and adjacent putty (product from damaged area can be reused if it is free from contaminants). Putty can be molded together at new/existing putty overlap.

8. Availability

3M™ Fire Barrier Moldable Putty Pads MPP+ are available from 3M Authorized Fire Protection Products Distributors and Dealers. 3M™ Fire Barrier Moldable Putty Pads MPP+ are available in the following sizes: (10 pads/ pack, 10 packs /case) 4 in. x 8 in. x 1/10 in. (101.6 mm x 203.2 mm x 2.5 mm), (20 pads/case) 7 in. x 7 in. 1/8 in. (177.8 mm x 177.8 mm x 2.5 mm), (20 pads/case) 9.5 in. x 9.5 in. 1/8 in. (241.3 mm x 241.3 mm x 2.5 mm); red-colored firestop material. 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) from country of use 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.

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Building and Commercial Services Division

3M Center, Building 223-2N-21
St. Paul, MN 55144-1000 USA
1-800-328-1687
www.3m.com/firestop



3M™ Fire Barrier Moldable Putty Stix MP+

Product Data Sheet

1. Product Description

3M™ Fire Barrier Moldable Putty Stix MP+ is a one-part, ready-to-use intumescent firestop containing a synthetic elastomer. The intumescent property of this material allows 3M™ Fire Barrier Moldable Putty Stix MP+ to expand and help maintain a firestop penetration seal for up to 4 hours in the event of a fire. It is often used to fill voids in large openings and/or complex firestop systems due to its moldability, re-enterability and smoke-seal properties (provides a draft and cold smoke seal for systems with L-Ratings).

3M™ Fire Barrier Moldable Putty Stix MP+ firestops penetrations passing through fire-rated floor, floor/ceiling or wall assemblies and blank openings. In addition to excellent thermal- and fire-resistance properties, 3M™ Fire Barrier Moldable Putty Stix MP+ helps minimize sound transmission through assemblies requiring an STC rating. 3M™ Fire Barrier Moldable Putty Stix MP+ is easily moldable by hand and exhibits excellent adhesion to a full range of construction substrates and penetrants.

3M™ Fire Barrier Moldable Putty Stix MP+ available in: ■ Dark Red.



Moldable through penetration firestop with excellent smoke-seal capability.

Product Features

- Firestop tested up to 4 hours in accordance with ASTM E 814 (UL 1479) & CAN/ULC S115
- Provides draft and cold smoke seal (L-rating)
- Pliable and conformable—molds easily into required shape
- Helps reduce noise transfer*
- Will not dry out or crumble
- Excellent adhesion
- Re-enterable/repairable
- Low VOC**
- Halogen-free and solvent-free formula
- Excellent aging properties
- Red color recognized as a firestop

*Minimizes noise transfer—STC-Rating of 54 when tested in STC 54-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

Typically used to seal gaps between cables in multiple penetrations and to firestop cable bundles, insulated pipe, electrical conduit, metal pipe and other through penetrations. Cable types covered include telephone, power/control and fiber optic inner duct. Also available in pad form as 3M™ Fire Barrier Moldable Putty Pads MPP+, which are ideal for protecting electrical box outlets. For more information visit our product catalog at www.3m.com/firestop.

3. Specifications

3M™ Fire Barrier Moldable Putty Stix MP+ shall be a one component, ready-to-use, intumescent elastomer capable of expanding a minimum of 3 times at 1000°F. The material shall be thixotropic and shall be applicable to overhead, vertical and horizontal firestops. Under normal conditions, 3M™ Fire Barrier Moldable Putty Stix MP+ shall be noncorrosive to metal and compatible with synthetic cable jackets. The putty shall be listed by independent test agencies such as UL, ULC, Intertek or FM. 3M™ Fire Barrier Moldable Putty Stix MP+ shall be tested to and pass the criteria of ASTM E 814 (UL 1479) Standard Test Method for Fire Tests of Penetration Firestop Systems and CAN/ULC S115 Standard Method of Fire Tests of Firestop Systems. 3M™ Fire Barrier Moldable Putty Stix MP+ meets the requirements of the IBC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NCB (Canada) Building Codes.

Typically Specified MasterFormat (2004)

Section 07 84 00 – Firestopping

Related Sections

Section 07 84 16 – Annular Space Protection

Section 07 86 00 – Smoke Seals

Section 07 87 00 – Smoke Containment Barriers

Section 07 27 00 – Thermal and Moisture Protection Firestopping

Section 21 00 00 – Fire Suppression

FIRE BARRIER UP TO 4 HOUR Fire Protection	SMOKE SEAL L RATED Meets Optional L Requirements
WALL OPENING UP TO 2 HOUR Fire Protection	SOUND BARRIER STC 52 In STC 53-Rated Wall Assembly



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



LISTED
FILL, VOID OR CAVITY
MATERIALS
90G9



LISTED
FIRESTOP SYSTEMS
SEE INTERTEK DIRECTORY



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



4. Performance & Typical Physical Properties

Color:	Dark Red	STC (ASTM E 90, ASTM E 413):	52 when tested in STC 53 rated wall assembly
Nominal Density:	10-12 lbs./gal. (1.2-1.45 kg/l)	VOC Less H₂O and Exempt Solvents:	<250 g/L
Nominal Thickness:	1/10 in. (2.54 mm)		
Surface Burning (ASTM E 84):	Flame Spread 0, Smoke Development 0		
Heat Expansion:	Begins @ 350°F (177°C), Significant @ 400°F (204°C) Free Expansion is Nominal 3 times		
Large Stix	Dimensions: 1.6 in. dia x 11 in. (40.6 mm dia. x 279 mm)	Unit Volume: 22.03 cu. in. (361.2 cu. cm.)	Unit weight: 4.1 oz (116.2 g)
Retail Stix	1.45 in. x 6 in. (36.8 mm x 152.4 mm)	4.63 cu. in. (76.0 cu. cm)	2.7 oz (76.5 g)

5. Packaging, Storage, Shelf Life

Packaging	1.6 in. x 11 in. (40.6 mm x 279 mm) stix in cardboard box, individually wrapped in liner (10 stix/case), and 1.45 in. x 6 in. (36.8 mm x 152.4 mm) individually packed in recloseable cardboard tube (retail package, 1 stix/tube).
Storage	3M™ Fire Barrier Moldable Putty Stix MP+ should be stored indoors in dry conditions.
Shelf Life	3M™ Fire Barrier Moldable Putty Stix MP+ shelf life is indefinite in original unopened containers. Product will not dry or crumble in opened containers. Normal stock and stock rotation practices are recommended.

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.

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 cleaned (i.e. free of dust, grease, oil, loose materials, rust or other substances) to allow for the proper adhesion of the 3M™ Fire Barrier Moldable Putty Stix MP+. Ensure that the surface of the substrates are not wet and are frost free.
Installation Details	Moldable Putty MP+ can be use as a primary firestopping sealant, or as a secondary product in conjunction with other 3M Fire Protection Products such as 3M™ Fire Barrier Pillows, 3M™ Fire Barrier Composite Sheet CS-195+, 3M™ Fire Barrier Pass-Through Devices, or the 3M™ Fire Barrier Putty Sleeve Kit. An example of how the putty is to be installed when it is the sole product in a metallic pipe penetrations comes from UL System C-AJ-1027 "Moldable putty material kneaded by hand and applied to fill annular space to a min. depth of 1 in. (25.4 mm), flush with top surface of floor. In wall assemblies, required putty thickness to be installed symmetrically on both sides of wall." When used with 3M™ Fire Barrier Pillows, UL systems typically require the putty to be installed "within annulus at all corners of opening and extending a min 1 in. (24.5 mm) in both directions from each corner, flush with top surface of floor or both surfaces of wall." Any voids between pillows should be filled with a min. 1 in. (24.5 mm) depth of putty. In the case of cable tray applications, there are additional requirements for the application of putty such as installing the putty between the bottom of the cable tray and bottom of opening. Likewise, putty (or another system-approved sealant) is required between the top of the cable tray and bottom of composite sheet or pillows. Consult each applicable UL system for specific putty installation requirements.
Limitations	Note: over application (i.e. using excessive amount of material) of product to vertical surfaces may cause sagging, follow system details. Product is not impaired by freezing but should be warmed to at least 32°F (0°C) before applying.

7. Maintenance

No maintenance is expected to be required when installed in accordance with the applicable UL, cUL, ULC, Intertek, FM or other third-party listed system. Once installed, if any section of the 3M™ Fire Barrier Moldable Putty MP+ no longer be installed per original system parameters, remove the putty, clean the area, and install the proper thickness per system details ensuring it bonds to the substrate and adjacent putty. If mineral wool was used as backing material, replace with new mineral wool prior to installation of the putty (putty can be reused if it is free from contaminants and can be molded together at new/existing putty overlap).

8. Availability

Description	Color	Size	Unit	Billing UPC Number	Units/Case	Price Unit
Moldable firestop putty stix (retail)		1.45" dia. x 6"	Stix	50051115-16561-5	12	EA
Moldable firestop putty stix (large)		1.6" dia. x 11"	Stix	50051115-16526-4	10	EA

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. 3M™ Fire Barrier Moldable Putty Stix MP+ are available from 3M Authorized Fire Protection Products Distributors and Dealers.

9. Safe Handling Information

Consult country-of-use Material Safety Data Sheet (MSDS) prior to handling and disposal.



Building and Commercial Services Division

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St. Paul, MN 55144-1000 USA
1-800-328-1687
www.3m.com/firestop

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.

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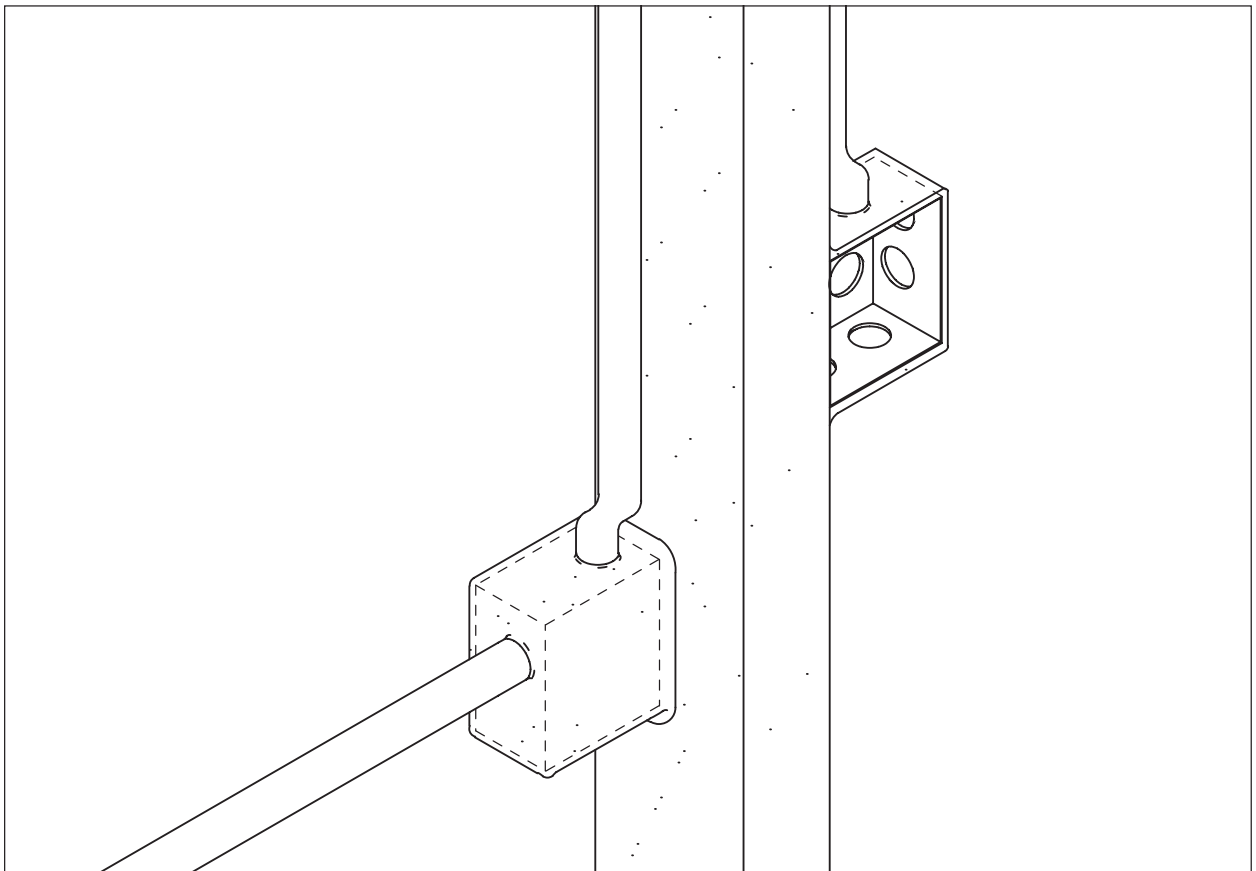
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Fire Barrier Moldable Putty+ Pads

Protecting Metallic and Non-Metallic
Electrical Boxes



This information brochure highlights requirements for UL listed, fire-rated electrical boxes located in some UL U300 and U400 fire-rated wall and partition designs. The information contained herein is intended to help in understanding codes (IBC, UBC, SBCCI, BOCA and NEC) and when to use 3M™ Fire Barrier Moldable Putty+ Pads per Underwriters Laboratories, Inc.® “Wall Openings Protective Material” (CLIV) listing.

What Does the Code Mean?

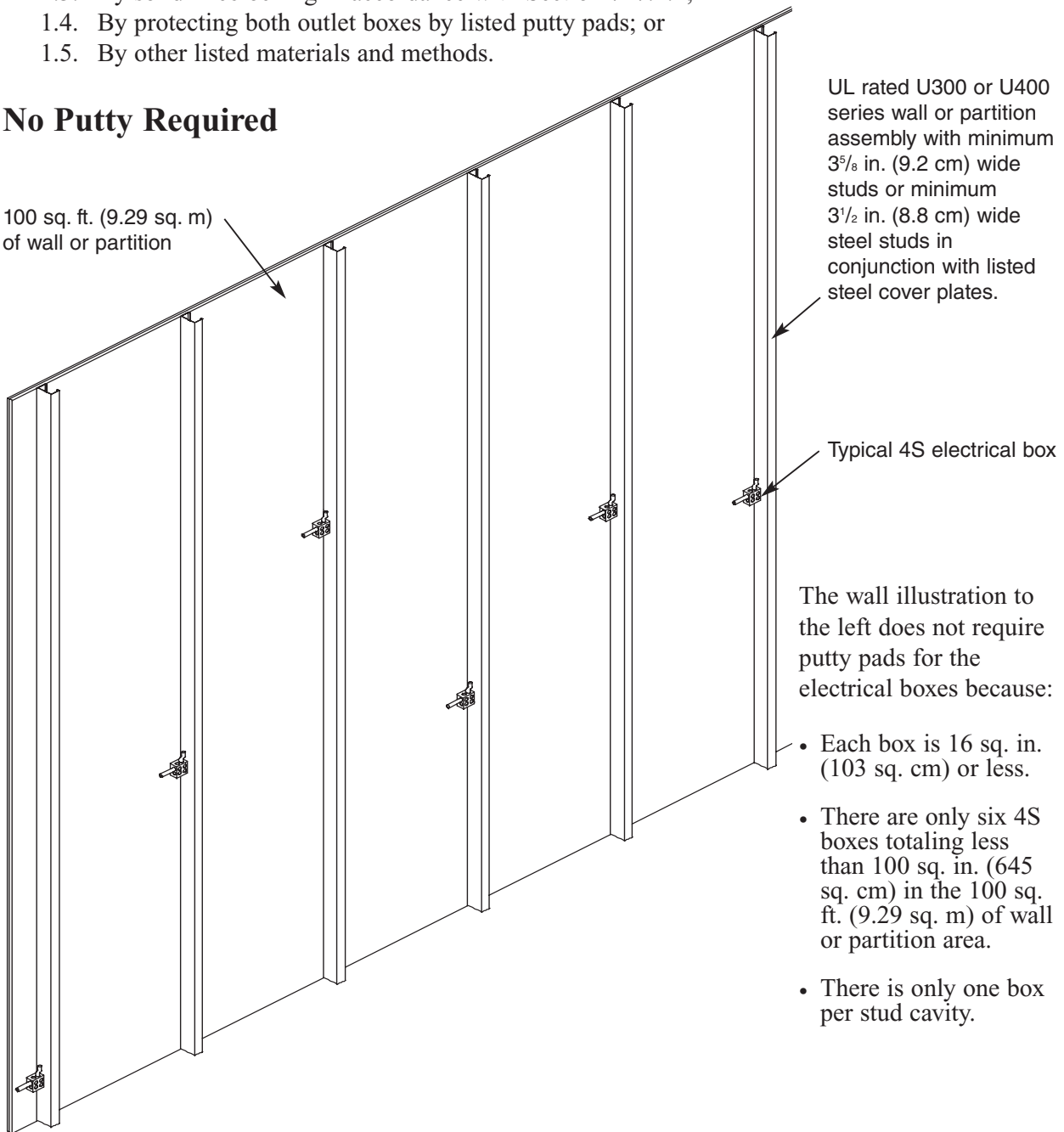
2003 IBC Code Guidelines

Section 712.3.2 Exception: 1. - Steel electrical boxes that do not exceed 16 square inches (0.0103 m²) in area provided the total area of such openings does not exceed 100 square inches (0.0645 m²) for any 100 square feet (9.29 m²) of wall area. Outlet boxes on opposite sides of the wall shall be separated as shown:

- 1.1. By a horizontal distance of not less than 24 inches (610 mm);
- 1.2. By a horizontal distance of not less than the depth of the wall cavity where the wall cavity is filled with cellulose loose fill, rockwool or slag mineral wool insulation;
- 1.3. By solid fireblocking in accordance with Section 717.2.1;
- 1.4. By protecting both outlet boxes by listed putty pads; or
- 1.5. By other listed materials and methods.

No Putty Required

100 sq. ft. (9.29 sq. m)
of wall or partition



UL rated U300 or U400 series wall or partition assembly with minimum 3⁵/₈ in. (9.2 cm) wide studs or minimum 3¹/₂ in. (8.8 cm) wide steel studs in conjunction with listed steel cover plates.

Typical 4S electrical box

The wall illustration to the left does not require putty pads for the electrical boxes because:

- Each box is 16 sq. in. (103 sq. cm) or less.
- There are only six 4S boxes totaling less than 100 sq. in. (645 sq. cm) in the 100 sq. ft. (9.29 sq. m) of wall or partition area.
- There is only one box per stud cavity.

When Putty Pads Are Used

Two Reasons to Use Putty

Putty pads are used to protect metallic and non-metallic electrical boxes for the following three reasons.

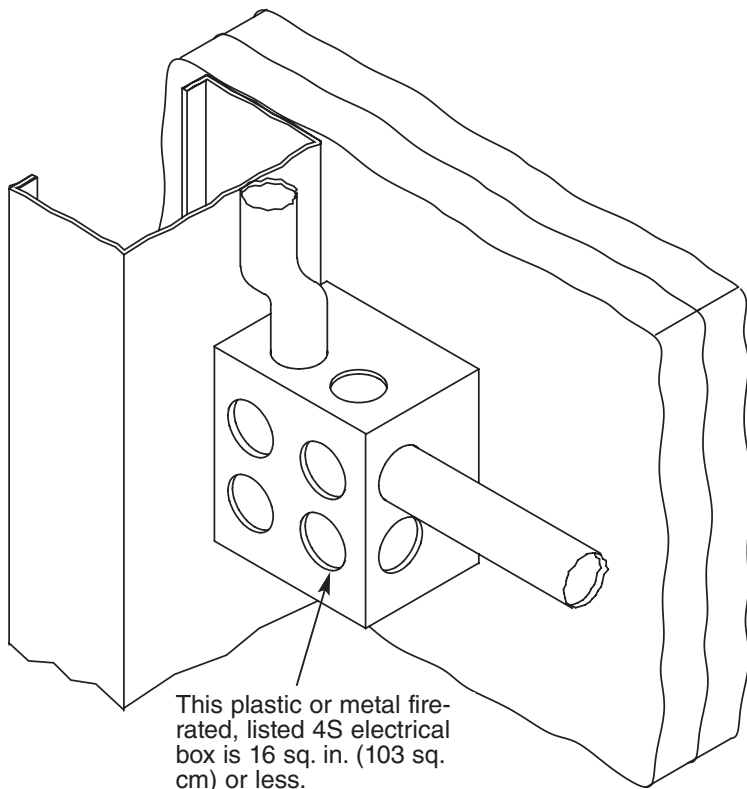
Size of Box

If the box is larger than 16 sq. in. (103 sq. cm), the box must be protected using putty pads.

Spacing Between Boxes

If the horizontal spacing between boxes is less than the required 24 in. (60.9 cm), the boxes must be protected using putty pads.

Size of Box



No Putty Required

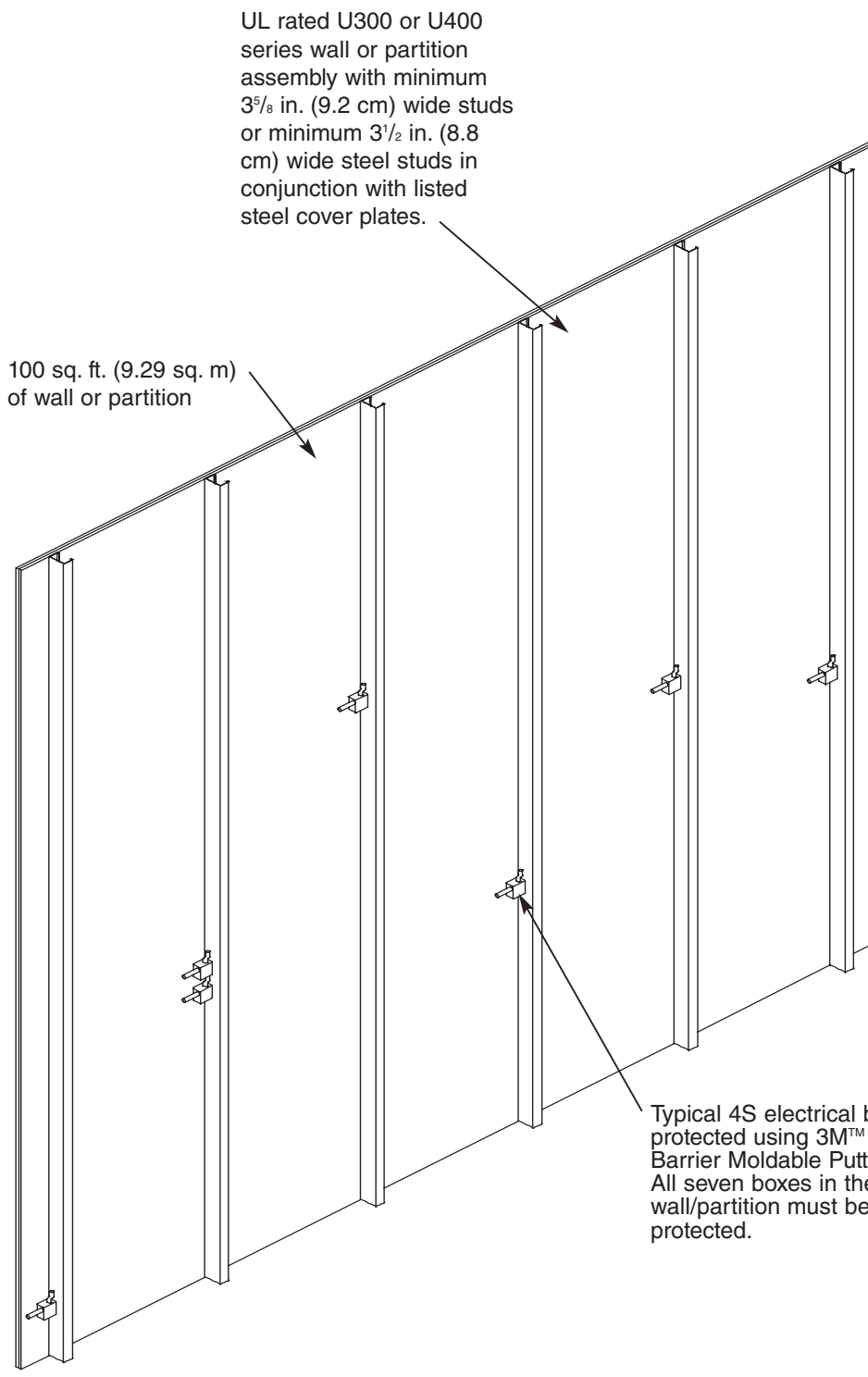
- Each 4S electrical box is 16 sq. in. (103 sq. cm) or less.
- Each 4S electrical box must be UL fire-rated and listed for use in a fire-rated assembly.

Putty Required

- Boxes exceeding 16 sq. in. (103 sq. cm) must be protected using putty pads. See back page for step-by-step instruction for applying putty pads to a typical electrical box.

Aggregate Area of Boxes

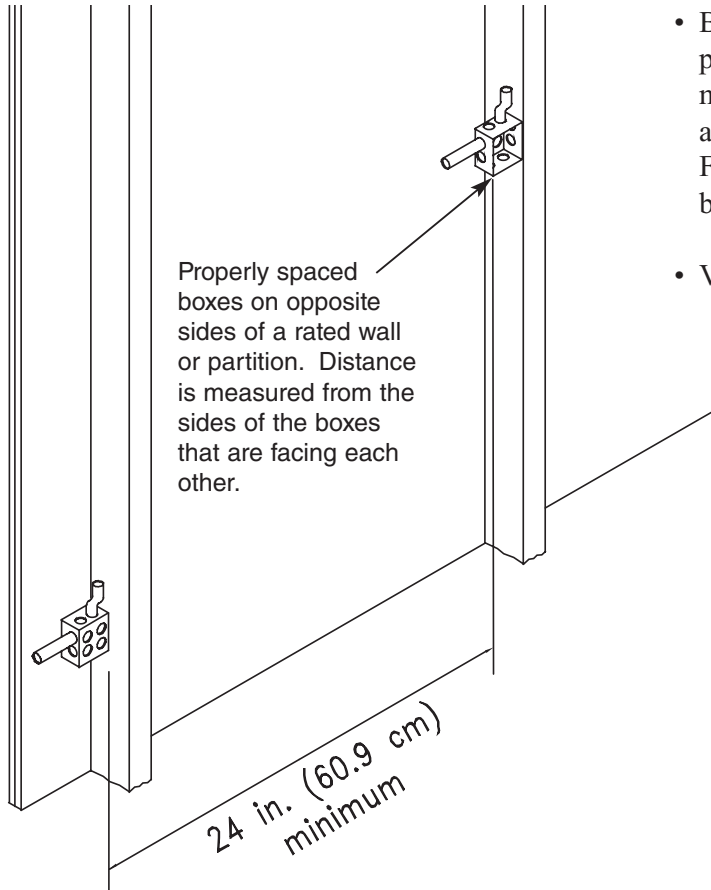
Putty Required



- Seven boxes are present within the 100 sq. ft. (9.29 sq. m) of wall. The aggregate area of all boxes exceeds the maximum 100 sq. in. per 100 sq. ft (645 sq. cm per 9.29 sq. m) of wall or partition, or if two boxes are located in one stud cavity.
- This configuration requires all seven boxes to be protected using 3M™ Fire Barrier Moldable Putty+ Pads.

Spacing Between Boxes

No Putty Required

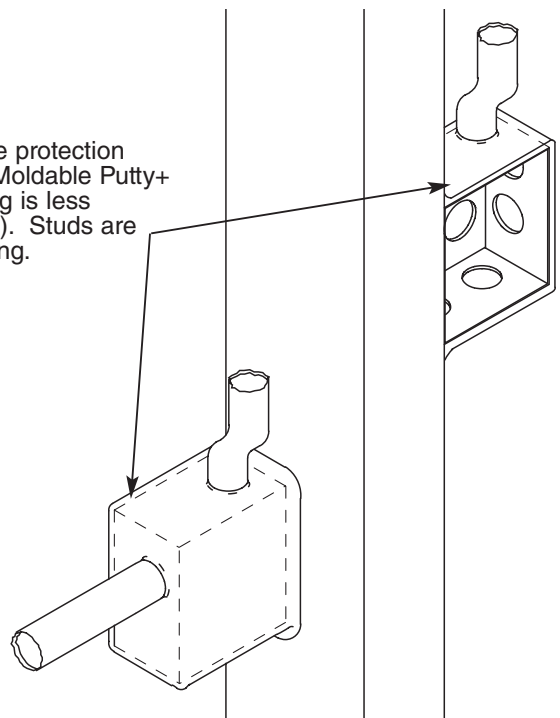


- Boxes on opposite sides of a rated wall or partition must be spaced 24 inches (60.9 cm) minimum horizontal. Reduced spacing is allowed if boxes are protected with 3M™ Fire Barrier Moldable Putty+ Pads, provided boxes are not back to back.
- Vertical distance is not considered.

Putty Required

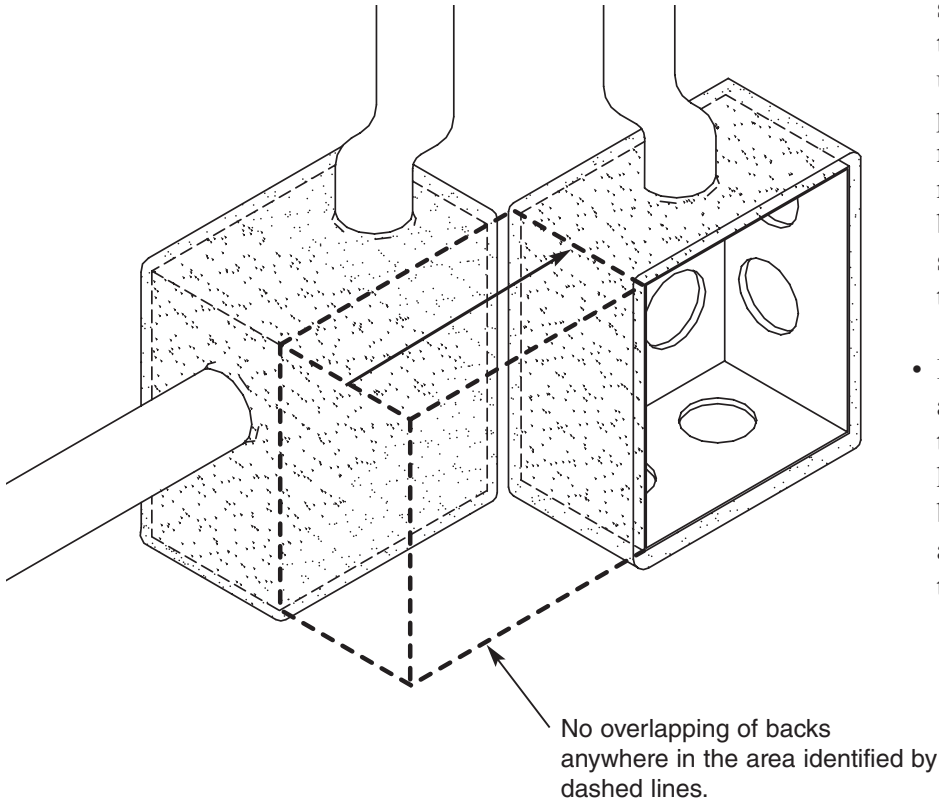
- Separation of boxes by a stud does not satisfy the 24 in. (60.9 cm) spacing requirement.
- Spacing is the indicator for determining if boxes on opposite sides of a rated wall or partition need to be protected. Vertical distance and studs are not considered for spacing.

Both these boxes require protection using 3M™ Fire Barrier Moldable Putty+ Pads. Horizontal spacing is less than 24 inches (60.9 cm). Studs are not considered for spacing.



Spacing Between Boxes - Continued

Putty Required



- The 24 in. (60.9 cm) minimum required spacing can be reduced if the boxes are protected using putty pads, provided the boxes are not installed back to back nor any portion of the backs are overlapping as shown in the drawing to the left.
- In addition, to facilitate application of the putty, the box corners should have sufficient space between them to allow application of putty pads to each box.

Using Putty Pads... Who Makes The Call?

Putty pads are a tested method for overcoming some of the limitations suggested by the NFPA Life Safety Code.

Adherence to these limitations is at the discretion of the local authority having jurisdiction (AHJ).

The bottom line? Check with your local inspector before installing putty pads.

WALL OPENING PROTECTIVE MATERIALS (CLIV)

This category covers proprietary compositions which are used to maintain the hourly ratings of fire resistive walls and partitions containing flush mounted devices such as outlet boxes, electrical cabinets and mechanical cabinets. The individual Classifications indicate the specific applications and the method of installation for which the materials have been evaluated.

The basic standard used to investigate products in this category is ANSI/UL 263, "Fire Tests of Building Construction and Materials".

LOOK FOR CLASSIFICATION MARKING ON PRODUCT

The Classification Marking of Underwriters Laboratories Inc. (shown below) on the product or container is the only method provided by Underwriters Laboratories Inc. to identify Wall Opening Protective Materials produced under its Classification and Follow-Up Service.

UNDERWRITERS LABORATORIES INC.®

CLASSIFIED

WALL OPENING PROTECTIVE MATERIAL

FIRE RESISTANCE CLASSIFICATION

SEE PRODUCT CATEGORY IN UL FIRE RESISTANCE DIRECTORY

3M COMPANY

3M CENTER, ST PAUL MN 55144 USA

R9700

Type MPP+ , moldable putty pads for use with max 4-11/16 by 4-11/16 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300 or U400 Series Wall and Partition Designs in the Fire Resistance Directory. Outlet boxes secured to wood studs by means of two nailing tabs in conjunction with nails supplied with the outlet box.

Type MPP+ , moldable putty pads for use with max 14 by 4 by 2-1/2 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in for 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U400 Series Wall and Partition Designs in the fire Resistance Directory.

Type MPP+ , moldable putty pads for use with max 14 by 4-1/2 by 2-1/2 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates, for use in for 2 hr rated gypsum board wall assemblies framed with min 3-5/8 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ , moldable putty pads for use with max 4 by 3-1/4 by 3-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of polycarbonate, Type 234 or made of phenolic, Type 1052 and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 1 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. wide wood studs and constructed as specified in the individual U300 series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ , moldable putty pads for use with max 4 by 3-3/4 by 3 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with plastic cover plates, for use in 1 hr rated gypsum board wall assemblies framed with min 3-5/8 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ , moldable putty pads for use with max 4 by 3-1/4 by 3-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of phenolic, Type 2002- 738-C and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U300 series Wall and Partition Designs in the Fire Resistance Directory.

Moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) including nailing tabs and completely seal against the stud within the stud cavity. Additional putty material used to seal around each conduit and/or cable fitting on the exterior of each box. A min 1/8 in. thickness of putty material is required on the exterior surfaces of flush device boxes in 1 and 2 hr fire rated Wall and Partition Designs. When the moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the outlet boxes are not installed back to back.

This material was extracted and drawn by 3M Fire Protection Products from the 2003 edition of the UL Fire Resistance Directory.

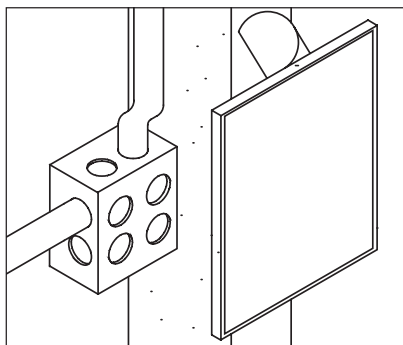
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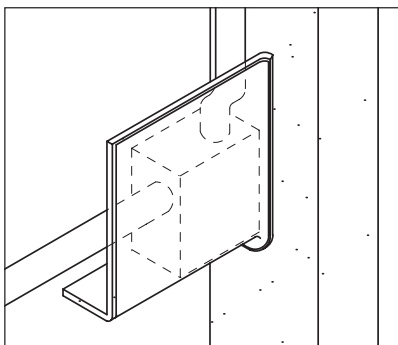
Typical Moldable Putty Application Steps

Refer to the Wall Opening Protective Material (CLIV) listing on the previous page for application details.

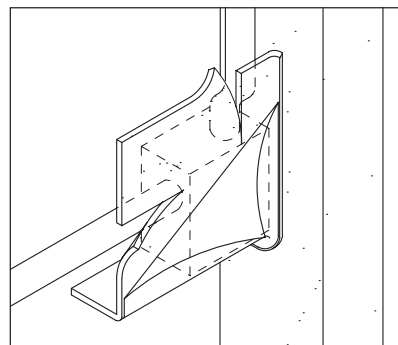
To ensure adequate adhesion, clean all surfaces removing dust, grease, oil, loose materials, rust or other substances. No special skill or tools are required.



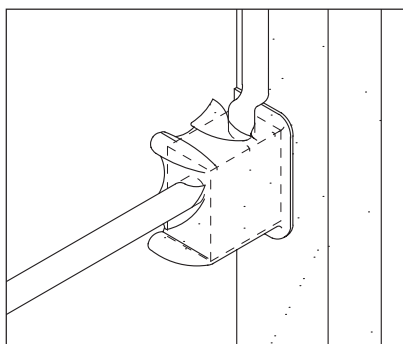
Step 1: Remove liner from one side of



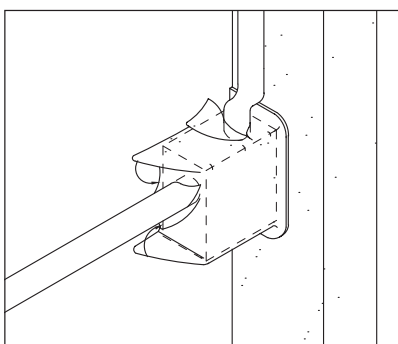
Step 2: Apply pad to bottom then backside of box, partially overlapping the stud.



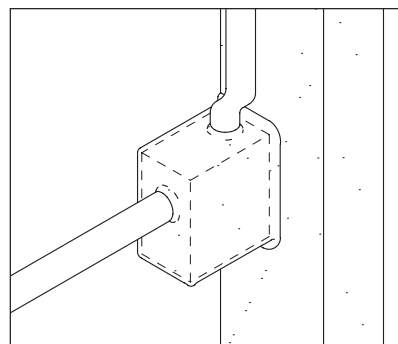
Step 3: Cut slits in pad to provide a snug fit around conduits or cables. Remove remaining liner from pad.



Step 4: Fold pad over top and side of box allowing excess putty to form pleats at the corners.



Step 5: Pinch pleat material together and fold against the vertical side of box or trim excess off as desired.



Step 6: Ensure pad is pressed firmly to surface of top, bottom and sides of box.

Important: Putty pad must be applied to a minimum depth of 1/8 inch (3.2 mm) (one layer of pad) over the entire exterior surface of the box for both 1 and 2 hour applications. Additional moldable putty may be packed into inside of conduit fittings to prevent passage of smoke through the conduit system.

3M™ Fire Barrier Moldable Putty+ (MPP)	Size	Cubic Inches (cm)	Units per Carton
MPP+ 7" x 7"	1/8 in. x 7 in. x 7 in. (3.2 mm x 178 mm x 178 mm)	6.12 (100.2)	20
MPP+ 9.5" x 9.5"	1/8 in. x 9.5 in. x 9.5 in. (3.2 mm x 241.3 mm x 241.3 mm)	11.3 (185.1)	20

Warranty and Limited Remedy. This product will be free from defects in materials 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 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 the 3M product or refund the purchase price of the 3M product.

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3M Center 223-2S-24
St. Paul, MN 55144-1000
Ph. 800-328-1687
www.3M.com/firestop



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AND UL FIRE RESISTANCE DIRECTORY
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Subject to the conditions of approval as a Wall & Floor Penetration Fire Stop when installed as described in the current edition of the FMRC Approval Guide

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