



# 3M™ Fire Barrier Duct Wrap 615+

## Product Data Sheet and Installation Guide

(Condensed Version)

### 1. Product Description

3M™ Fire Barrier Duct Wrap 615+ is a flexible fire-resistant wrap consisting of an inorganic fiber blanket encapsulated with a scrim-reinforced foil. The product is 1-1/2 in. thick, 6pcf density.<sup>1</sup> It is used to fire rate commercial kitchen grease ducts as well as ventilation ducts, and is a proven alternative to 1- or 2-hour fire-resistant rated shaft enclosures. With its excellent insulating capabilities, low weight and thin profile, it is an ideal choice for a duct enclosure system. This non-asbestos<sup>2</sup> wrap installs easily due to its high flexibility and strength.

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

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



Flexible and lightweight with a thin profile for easier application and reduced space requirements

#### Product Features

- Two-layer wrap for grease ducts rated as a shaft alternative per ASTM E 2336
- Zero clearance to combustible throughout the entire enclosure system for congested spaces
- Butted inner layer in 2-layer Grease Duct Applications
- One-layer wrap for fire-resistive ventilation ducts per ISO 6944
- High flexibility for installation ease
- Foil encapsulated for blanket protection, less dust, and high wrap strength
- Widest range of penetration seal systems
- Available in 24 in. x 25 ft. (609.6 mm x 7.62 m) and 48 in. x 25 ft. (1219.2 mm x 7.62 m) rolls
- Blanket adhered to foil scrim

### 2. Applications

3M™ Fire Barrier Duct Wrap 615+ is an ideal fire resistive enclosure for commercial kitchen grease ducts and ventilation air ducts. It is a proven performance alternative to a 1- or 2-hour fire-resistant rated shaft enclosures and provides zero clearance to combustible construction throughout the entire enclosure system. 3M™ Fire Barrier Water Tight Sealant 1000 NS, 3M™ Fire Barrier Water Tight Sealant 1003 SL or 3M™ Fire Barrier Water Tight Sealant 2000+ Silicone Sealants is used in combination with 3M™ Fire Barrier Duct Wrap 615+ to firestop the duct when the duct penetrates fire-rated floor or wall assemblies.

**Two-layer grease duct applications:** 3M™ Fire Barrier Duct Wrap 615+ meets the criteria of ASTM E 2336 Standard Test Methods for Fire Resistive Grease Duct Enclosure Systems.

**Single-layer air duct applications:** 3M™ Fire Barrier Duct Wrap 615+ has passed ISO 6944-1985 Fire Resistance Tests – Ventilation Ducts.

### 3. Specifications

Installation shall be in strict accordance with manufacture's written instructions, as shown on the approved shop drawings. 3M™ Fire Barrier Duct Wrap 615+ shall be a high-temperature fiber blanket thermal insulation encapsulated in a fiberglass-reinforced aluminumized polyester foil. Duct Wrap density shall be nominal 6 pcf (96 kg/m<sup>3</sup>) and have a nominal 1-1/2" (38.1 mm) thickness. The fiber blanket shall have a continuous use limit of 1000 °C (1832 °F). The blanket thermal resistance (R-value) at ambient temperature shall be minimum  $6.3 \frac{^{\circ}F-ft^2-hr}{Btu}$ .

Smoke Developed Index and Flame Spread Index of the bare blanket, and of the foil encapsulated blanket shall be 0/0. The foil encapsulation shall be bonded to the core blanket material.

#### Typically Specified Division

Division 7  
Section 23 07 13 – Duct Insulation

#### Related Sections

Section 07 21 00 – Thermal Protection  
Section 07 21 16 – Blanket Insulation  
Section 07 84 00 – Firestopping  
Section 23 00 00 – Heating, Ventilation and Air-Conditioning (HVAC)  
Section 23 31 13 – Metal Ducts

FIRE BARRIER FLEXIBLE WRAP



ICC-ES ESR-1255



LISTED



Intertek

FIRE RESISTANT DUCT  
SEE INTERTEK DIRECTORY

LISTED



Intertek

FIRE RESISTANT DUCT  
SEE INTERTEK DIRECTORY



BATTS AND BLANKETS  
FOR USE IN FIRE RESISTIVE DUCT ASSEMBLIES  
SEE UL FIRE RESISTANCE DIRECTORY  
9069



CSFM  
LISTING No.  
2440-0941:112



## 4. Performance & Typical Physical Properties

<b>Scrim Color:</b>	Aluminium with Black Text
<b>Blanket Color:</b>	White
<b>Blanket Weight:</b>	0.9 lbs/ft. <sup>2</sup> (4.38 kg/m <sup>2</sup> )
<b>Surface Burning:</b>	Foil Encapsulated Blanket (ASTM E 84) Flame Spread 0, Smoke Development 0

<b>Thermal Conductivity:</b>	<i>Temp.</i>	$\frac{Btu - in.}{hr - ft^2 - ^\circ F}$	$\frac{W}{m^2 - K}$
	500°F (260°C)	0.60	0.09
	1000°F (537°C)	1.15	0.17
	1500°F (815°C)	1.93	0.28
	1800°F (982°C)	2.51	0.36
	2000°F (1093°C)	2.94	0.43

R-Value for single layer of 3M™ Fire Barrier Duct Wrap 615+ at 77°F (25°C):

$$6.38 \frac{^\circ F - ft^2 - hr}{Btu}$$

**Linear Shrinkage** (24 Hr@ 2012°F (1000°C)): 1.2%

## 5. Design Listings

Fire Resistive Rating	Enclosure System	Third-Party Testing Services Design Listing	Description
<b>Grease Duct Listings – ASTM E 2336 / ICC-ES AC101</b>			
1- and 2-hour	2 layers of 3M™ Fire Barrier Duct Wrap 615+	ICC-ES ESR-1255	Rectangular
		Intertek 3MU/FRD 120-18	Rectangular
		Intertek 3MU/FRD 120-19	Round
<b>Ventilation Duct Listings – ISO 6944</b>			
1- and 2-hour	1 layer of 3M™ Fire Barrier Duct Wrap 615+	Intertek 3MU/DI 60-01	Rectangular/Round (1 Hour)
		Underwriters Laboratories HNLJ.V-27	Rectangular (2 Hour)
		Intertek 3MU/DI 120-01	Rectangular/Round (2 Hour)

This document only contains a partial list of Design Listings. For the latest information go to [www.3M.com/firestop](http://www.3M.com/firestop) or speak to your authorized 3M distributor or sales representative at (800) 328-1687.

## 6. Codes & Test Standards

**3M™ Fire Barrier Duct Wrap 615+ has been tested in accordance with the following:**

ASTM E 2336	Standard Test Methods for Fire Resistive Grease Duct Enclosure Systems
ICC-ES AC101	Acceptance Criteria for Grease Duct Enclosure Assemblies
ASTM E 119	Standard Test Methods for Fire Tests of Building Construction
ASTM E 814	Standard Test Method for Fire Tests of Penetration Firestop Systems
ASTM E 136	Standard Test Method for Behavior of Material in a Vertical Tube Furnace at 750°C (1382°F)
ASTM C 518	Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
ASTM C 1338	Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
ASTM E 84	Standard Test Method for Surface Burning Characteristics of Building Materials
ISO 6944-85	Fire Resistance Tests – Ventilation Ducts

**3M™ Fire Barrier Duct Wrap 615+, when installed per ASTM E 2336 tested Grease Duct Design Listings, meets the following code requirements:**

NFPA 96	2008 Edition
International Mechanical Code®	2003/2006/2009
Uniform Mechanical Code	2003/2006/2009

**3M™ Fire Barrier Duct Wrap 615+, when installed per ISO 6944 tested Ventilation Duct Design Listings, can help to satisfy the following code requirements:**

NFPA 92A	Standard for Smoke-Control System Utilizing Barriers and Pressure Differences, 2009 Edition – Section 6.6.2
NFPA 92B	Standard for Smoke Management Systems in Malls, Atria, and Large Spaces, 2009 Edition – Section 7.5.2
International Mechanical Code®	2006/2009 Editions – Section 513.10.2
International Building Code®	2006/2009 Editions – Section 909.10.2

## 7. Packaging, Storage, Shelf Life

3M™ Fire Barrier Duct Wrap 615+ rolls are packaged in corrugated cardboard boxes. Product is stable under normal storage conditions. Normal stock and stock rotation practices are recommended. 3M™ Fire Barrier Duct Wrap 615+ shelf life is indefinite when stored in original unopened packaging in a dry warehouse environment. Pallets should not be stacked. 3M™ Fire Barrier Water Tight Sealant (1000 NS or 1003 SL) or 3M™ Fire Barrier Silicone Sealant 2000+ must be also stored in a dry warehouse environment.

## 8. Installation Techniques

3M™ Fire Barrier Duct Wrap 615+ should be installed per the application design listing in accordance with the following basic installation instructions.

### Material and Equipment

- 24 in. or 48 in. wide<sup>1</sup> by 1-1/2 in. (38.1 mm) thick<sup>2</sup> by 25 ft. (762 cm) standard length 3M™ Fire Barrier Duct Wrap 615+ blanket (60.96 cm or 121.92 cm by 38.1 mm by 762 cm)
- 3M™ FSK Facing Tape 3320 or equivalent
- Minimum 3/4 in. (19 mm) wide filament tape (recommend Scotch® Filament Tape 898)
- Stainless steel or carbon steel banding material, minimum 1/2 in. (12.7 mm) wide and minimum 0.015 in. (0.38 mm) thick with banding clips of the same material
- Hand banding tensioner, crimping tool and banding cutter
- Minimum 12 gauge copper-coated steel insulation pins used with minimum 2-1/2 in. (63.5 mm) square galvanized steel or stainless speed clips or 1-1/2 in. (38.1 mm) dia. round or equivalent sized insulated cup-head pins
- Capacitor discharge stud gun
- Access door hardware: four galvanized steel thread rods, 1/4 in. diameter by minimum 6 in. long (6.35 mm by 152.4 mm) with 1/4 in. (6.35 mm) wing nuts and 1/4 in. (6.35 mm) washers
- 4 in. (102 mm) long steel hollow tubing to fit threaded rods
- Minimum 4 pcf (64 kg/m<sup>3</sup>) density mineral wool or scrap pieces of 3M™ Fire Barrier Duct Wrap 615+
- 3M™ Fire Barrier Water Tight Sealant (1000 NS or 1003 SL) or 3M™ Fire Barrier Silicone Sealant 2000+.

<sup>1</sup> Note: 48 in. (121.92 cm) wide blanket helps to maximize coverage since the 3 in. (76.2 mm) longitudinal overlaps occur less frequently.

<sup>2</sup> In accordance with the tolerances in ASTM C 892 Standard Specification for High-Temperature Fiber Blanket Thermal Insulation.

### Preparatory Work

3M™ Fire Barrier Duct Wrap 615+ is installed with common tools, such as knives, banders and capacitor discharge guns for applying insulation pins. In order to install the duct firestop system, the surfaces of all the openings and penetrating items need to be clean, dry, frost free and free of dust

### 2-Layer Grease Duct Method (ASTM E 2336)

Note: This general instruction for applying 3M™ Fire Barrier Duct Wrap 615+ details a two-layer wrap installation of 3M™ Fire Barrier Duct Wrap 615+ blanket applied directly to a grease duct. To minimize waste, the 3M™ Fire Barrier Duct Wrap 615+ material should be rolled out tautly before measuring. The first layer of 3M™ Fire Barrier Duct Wrap 615+ blanket is wrapped around the perimeter of the duct and is cut to a length to either butt to itself or overlap itself not less than 3 in. (76.2 mm). The interface between adjacent blankets forms the "longitudinal" joint. Inner layer longitudinal joints can be tightly butted joints or they should overlap onto adjacent blankets with a min. 3 in. (76.2 mm) overlap. Aluminum foil tape is used to seal all cut edges of the blanket and any tears in the foil scrim. This first layer is temporarily held in place using filament tape. The first layer does not require steel banding.

The second layer of 3M™ Fire Barrier Duct Wrap 615+ blanket is wrapped around the perimeter of the previously installed first layer of 3M™ Fire Barrier Duct Wrap 615+. The second layer of blanket should be centered over the longitudinal joint of the first layer. (76.2 mm). Regardless of installation method, the second layer perimeter (lateral) joint must be an overlap of not less than 3 in. (76.2 mm). When installing 3M™ Fire Barrier Duct Wrap 615+ onto grease ducts using any method except the Butt Joint with Collar method, the outer layer longitudinal joints must have a min. 3 in. (76.2 mm) overlap. With the Butt Joint with Collar method, the outer layer longitudinal joints are tightly butted and the 3M™ Fire Barrier Duct Wrap 615+ Collar is centered over the outer layer longitudinal joint. The second layer of blanket can be temporarily held in place using filament tape. The second layer of wrap requires permanent fastening with stainless, or carbon, steel banding or rows of weld pins (impaling or cup-head style).

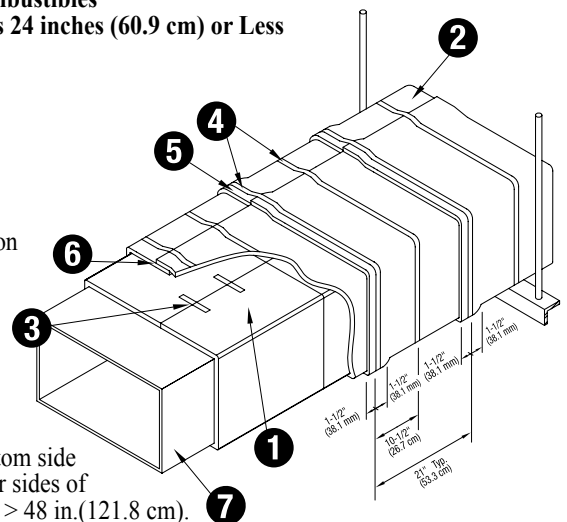
### 3M™ Fire Barrier Duct Wrap 615+ Commercial Kitchen Grease Duct Systems (Figure 1)

#### 1- or 2-Hour Shaft Alternative Zero Clearance to Combustibles Telescoping Wrap Technique With Banding For Ducts 24 inches (60.9 cm) or Less

1. First layer 3M™ Fire Barrier Duct Wrap 615+
2. Second layer 3M™ Fire Barrier Duct Wrap 615+
3. 3/4 in. (19 mm) wide filament tape
4. Steel banding 1/2 in. (12.7 mm) wide min. typical for permanent fastening
5. Longitudinal joint butt or min. 3 in. (76.2 mm) overlap on inner layer, min. 3 in. (76.2 mm) overlap on outer layer
6. Perimeter (lateral) joint butt or min. 3 in. overlap (76.2 mm) on inner layer, min. 3 in. (76.2 mm) overlap on outer layer
7. Metallic Commercial Cooking Exhaust Duct

System integrity is limited by quality of installation.

Ducts  $\geq$  24 in. (60.9 cm) wide require pinning on the bottom side of horizontal ducts and on a minimum of one of the wider sides of a vertical duct. Vertical ducts require pinning on any side  $>$  48 in. (121.8 cm).



Consult current independent testing laboratories (e.g. Intertek, UL) for design or system details.

## 8. Installation Techniques cont.

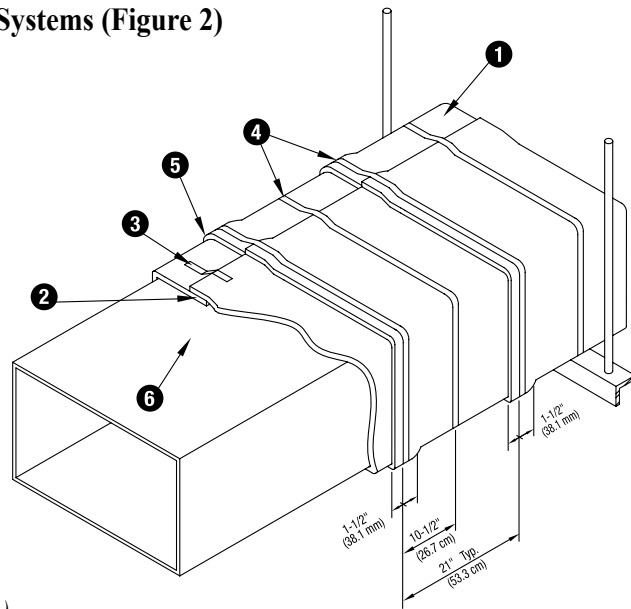
### 3M™ Fire Barrier Duct Wrap 615+ Ventilation Duct Systems (Figure 2)

1. 3M Fire Barrier Duct Wrap 615+, 1-layer
2. Perimeter (lateral) joint min. 3 in. (76.2 mm) overlap
3. 3/4 in. (19 mm) wide filament tape
4. Steel banding 1/2 in. (12.7 mm) wide min. typical for permanent fastening
5. Longitudinal joint min. 3 in. (76.2 mm) overlap
6. Metallic HVAC Duct

System integrity is limited by quality of installation.

Ducts  $\geq 24$  in. (60.9 cm) wide require pinning on the bottom side of horizontal ducts and on a minimum of one of the wider sides of a vertical duct. Vertical ducts require pinning on any side that is  $> 48$  in. (121.8 cm).

*Consult current independent testing laboratories (e.g. Intertek, UL) for design or system details.*

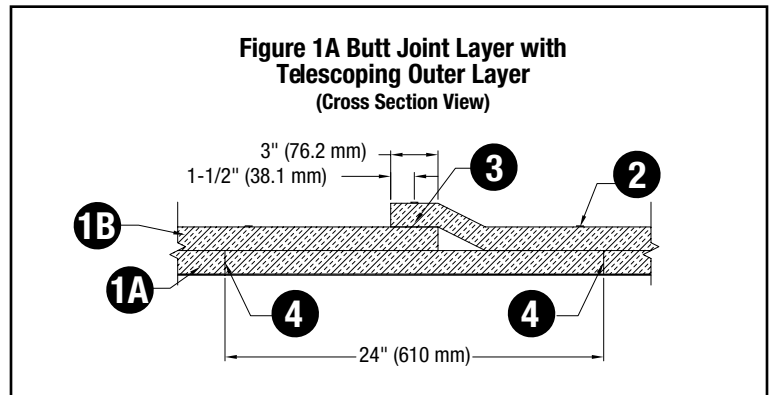


## Four (4) approved grease duct installation techniques: 3M™ Fire Barrier Duct Wrap 615+

### 1A. Butt Joint Inner Layer with Telescoping Outer Layer

With the butt-joint inner layer and telescoping outer layer technique, the inner layer of blankets abut the adjacent pieces of blanket. The outer layer blankets each overlap one adjacent blanket, and then the exposed edge is covered by the next blanket as shown in Figure 1A.

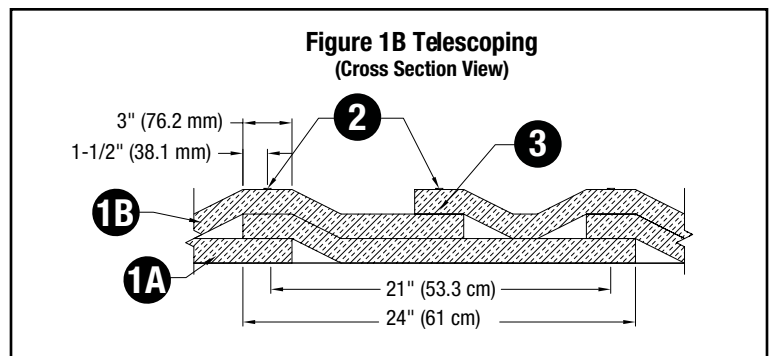
- 1A. First layer of 3M™ Fire Barrier Duct Wrap 615+
- 1B. Second layer of 3M™ Fire Barrier Duct Wrap 615+
2. Steel Banding 1/2 in. (12.7 mm) Wide Min. Typical
3. 3 in. (76.2 mm) Min. Longitudinal Overlap
4. Firmly Butted Joint



### 1B. Telescoping 3 in. (76.2 mm) Overlap Wrap

With the telescoping overlap wrap method, each blanket overlaps one adjacent blanket, and each blanket has one edge exposed and one edge covered by the next blanket as shown in Figure 1B.

- 1A. First layer of 3M™ Fire Barrier Duct Wrap 615+
- 1B. Second layer of 3M™ Fire Barrier Duct Wrap 615+
2. Steel Banding 1/2 in. (12.7 mm) Wide Min. Typical
3. 3 in. (76.2 mm) Min. Longitudinal Overlap



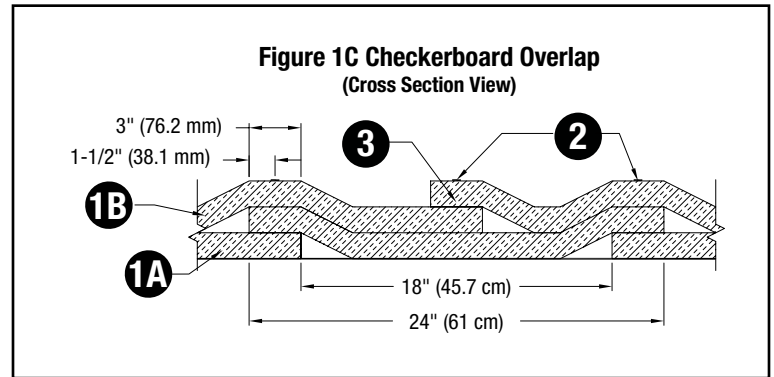
## 8. Installation Techniques cont.

### Four (4) approved grease duct installation techniques: 3M™ Fire Barrier Duct Wrap 615+ cont.

#### 1C. Checkerboard 3 in. (76.2 mm) Overlap Wrap

With the 3 in. (76.2 mm) checkerboard overlap wrap method, blankets with both edges exposed alternate with blankets with covered edges, as shown in Figure 1C.

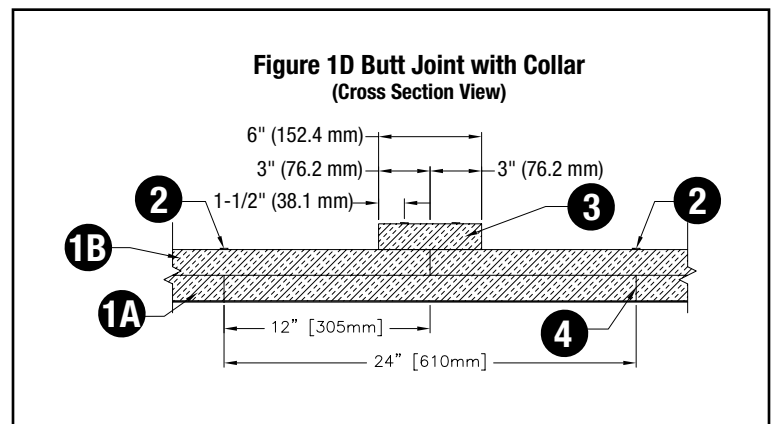
- 1A. First layer of 3M™ Fire Barrier Duct Wrap 615+
- 1B. Second layer of 3M™ Fire Barrier Duct Wrap 615+
- 2. Steel Banding 1/2 in. (12.7 mm) Wide Min. Typical
- 3. 3 in. (76.2 mm) Min. Longitudinal Overlap



#### 1D. Butt Joint with Collar

With the butt joint and collar method, adjacent blankets are butted tightly together and 6 in. (152.4 mm) wide collar of duct wrap is centered over the joint, overlapping each blanket by 3 in. (76.2 mm) minimum as shown in Figure 1D.

- 1A. First layer of 3M™ Fire Barrier Duct Wrap 615+
- 1B. Second layer of 3M™ Fire Barrier Duct Wrap 615+
- 2. Steel Banding 1/2 in. (12.7 mm) Wide Min. Typical
- 3. 6 in. (152.4 mm) Min. Wide Fire Barrier Duct Wrap 615+ Collar
- 4. Firmly Butted Joint



*Note: System integrity is limited by quality of installation. Consult current Independent Testing Laboratories (Intertek, UL) or ICC-ES Report for Design Listing or System Details. In all four overlap techniques approved for grease ducts, the perimeter overlap can occur at any location on the duct.*

*The blanket is mechanically attached to the duct by stainless, or carbon, steel banding or by welded insulation pins and clips for all four installation methods listed above.*

## 8. Installation Techniques cont.

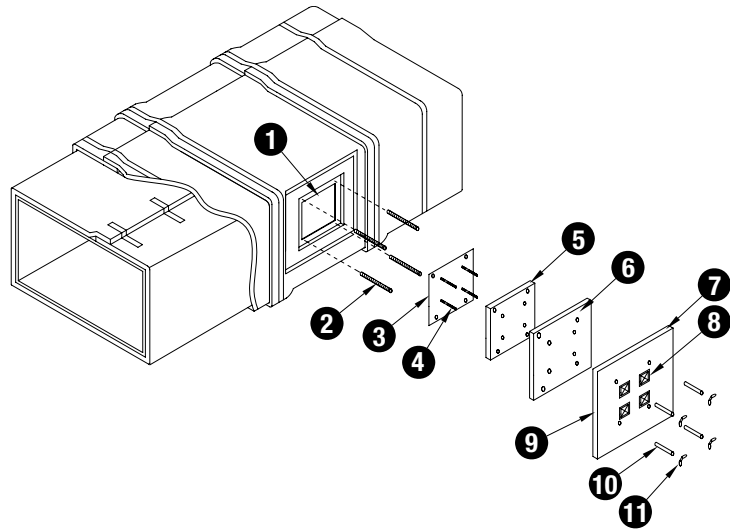
### Access Door Installation

Four galvanized steel threaded rods, 1/4 in. diameter (6.35 mm) by 4-1/2 in. to 5 in. long (114.3 mm to 127 mm) are welded to the duct at the corners of the door opening. Four steel tubes, each 3 in. (76.2 mm) long, are placed over the rods to act as protection for the 3M™ Fire Barrier Duct Wrap 615+, and to transfer the wing nut force to the access door, when fastening the door. Four insulation pins are welded to the door panel for installation of the blanket. One layer of 3M™ Fire Barrier Duct Wrap 615+ is cut approximately the same size as the access panel and impaled over the insulation pins on the panel. It is essential that this layer fit tightly against the wrap surrounding the access door opening with no through openings. A second layer of 3M™ Fire Barrier Duct Wrap 615+ is cut to overlap the first layer by a minimum of 1 in. (25.4 mm). A third layer of 3M™ Fire Barrier Duct Wrap 615+ is cut to overlap the second layer by a minimum of 1 in. (25.4 mm). The third layer is impaled over the pins and all three layers are locked in place with galvanized or stainless steel speed clips. Pins that extend beyond the outer layer of 3M™ Fire Barrier Duct Wrap 615+ shall be turned down or cut off to avoid sharp points on the door. The insulated door panel is placed over the threaded rods and held in place with washers and wing nuts. The details are shown in Figure 3. The details for installing the 3M™ Fire Barrier Grease Duct Access Door (pre-manufactured) are shown in Figure 3A.

### 3M™ Fire Barrier Duct Wrap 615+ Commercial Kitchen Grease Duct Systems (Figure 3)

#### 1- or 2-Hour Access Door System

1. Access Hole
2. 1/4 in. (6.35 mm) Dia. All Threaded Rods
3. Access Cover – 16 Gauge
4. Insulation Pins – Welded
5. First Layer 3M™ Fire Barrier Duct Wrap 615+ Cut Same Size As Cover
6. Second Layer 3M™ Fire Barrier Duct Wrap 615+ with 1 in. (25.4 mm) Overlap On All Sides
7. Third Layer 3M™ Fire Barrier Duct Wrap 615+ with 1 in. (25.4 mm) Overlap On All Sides
8. Speed Clips
9. Aluminum Tape Covering All Exposed Edges
10. Spool Pieces For Threaded Rods
11. 1/4 in. (6.35 mm) Diameter Wings Nuts

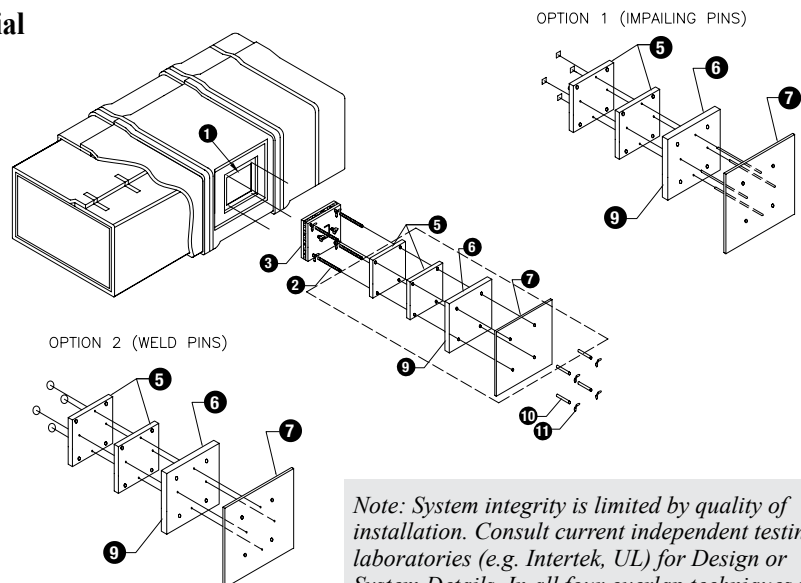


*Note: System integrity is limited by quality of installation. Consult current independent testing laboratories (e.g. Intertek, UL) for Design or System Details. In all four overlap techniques the perimeter overlap can occur at any location on the duct.*

### 3M™ Fire Barrier Duct Wrap 615+ Commercial Kitchen Grease Duct Systems (Figure 3A)

#### 1- or 2-Hour Access Door System

1. Access Hole
2. 1/4 in. (6.35 mm) Dia. All Threaded Rods
3. 3M™ Fire Barrier Grease Duct Access Door
4. Insulation Pins – Welded
5. First Layer 3M™ Fire Barrier Duct Wrap 615+ Cut Same Size As Cover
6. Second Layer 3M™ Fire Barrier Duct Wrap 615+ with 1 in. (25.4 mm) Overlap On All Sides
7. Third Layer 3M™ Fire Barrier Duct Wrap 615+ with 1 in. (25.4 mm) Overlap On All Sides
8. Speed Clips
9. Aluminum Tape Covering All Exposed Edges
10. Spool Pieces For Threaded Rods
11. 1/4 in. (6.35 mm) Diameter Wings Nuts



*Note: System integrity is limited by quality of installation. Consult current independent testing laboratories (e.g. Intertek, UL) for Design or System Details. In all four overlap techniques the perimeter overlap can occur at any location on the duct.*

## 8. Installation Techniques cont.

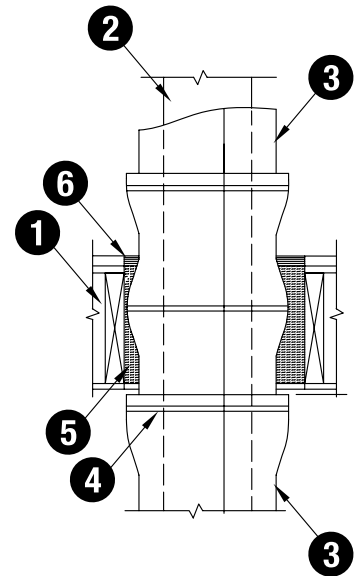
### Penetrations

When the duct penetrates a fire rated wall, ceiling or floor, an approved firestop system must be employed. Figures 4-6 illustrate typical conditions. To firestop the wrapped duct, follow the installation parameters detailed in a compatible ASTM E 814 tested through-penetration firestop design. Note: Through-penetration designs in which the duct is bare where it passes through combustible or limited-combustible construction (e.g. gypsum walls or wood joist floor-ceiling assemblies) are appropriate for ventilation duct scenarios only. It is not appropriate for bare, uninsulated grease ducts to pass through combustible assemblies. Intertek design listings contain through penetration details. See system details of UL System HNLJ.V-27, Section 3.C. for applicable UL through penetration systems.

#### 3M™ Fire Duct Wrap 615+ Typical Through Penetration Firestop System (Figure 4)

##### 1-Hour Through Penetration Systems Fire-Rated Wood/Gypsum Floor/Ceiling Assembly

1. Floor/Ceiling Assembly
  2. Duct
  3. One or Two Layers 3M™ Fire Barrier Duct Wrap 615+
  4. Banding or Pinning
  5. 3M™ Fire Barrier Packing Material PM 4, 4 pcf mineral wool or scrap duct wrap (min. 33% compressed)
  6. 3M™ Fire Barrier Water Tight Sealant 1000 NS, 3M™ Fire Barrier Water Tight Sealant 1003 SL, or 3M™ Fire Barrier Silicon Sealant 2000+
- Note: Sealant to be applied at a minimum 5/8" (15.9 mm) depth

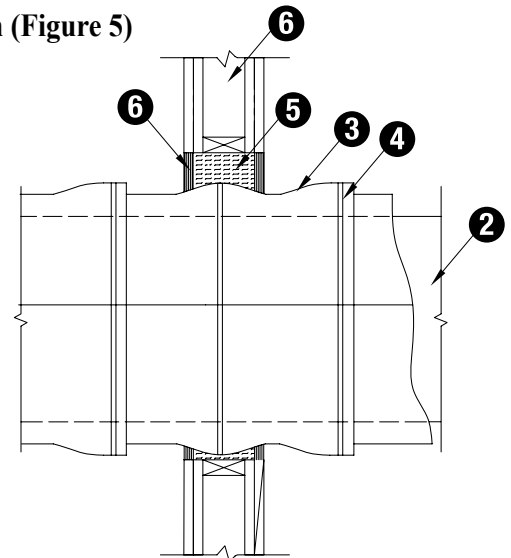


*Note: System integrity is limited by quality of installation. Consult current independent testing laboratories (e.g. Intertek, UL) for Design or System Details.*

#### 3M™ Fire Duct Wrap 615+ Typical Through Penetration Firestop System (Figure 5)

##### 1- or 2-Hour Through Penetration Systems – Gypsum Wallboard

1. Gypsum Wallboard Assembly
  2. Duct
  3. One or Two Layers 3M™ Fire Barrier Duct Wrap 615+
  4. Banding or Pinning
  5. 3M™ Fire Barrier Packing Material PM 4, 4 pcf mineral wool or scrap duct wrap (min. 33% compressed)
  6. 3M™ Fire Barrier Water Tight Sealant 1000 NS or 3M™ Fire Barrier Silicon Sealant 2000+
- Note: Sealant to be applied at a minimum 5/8" (15.9 mm) depth



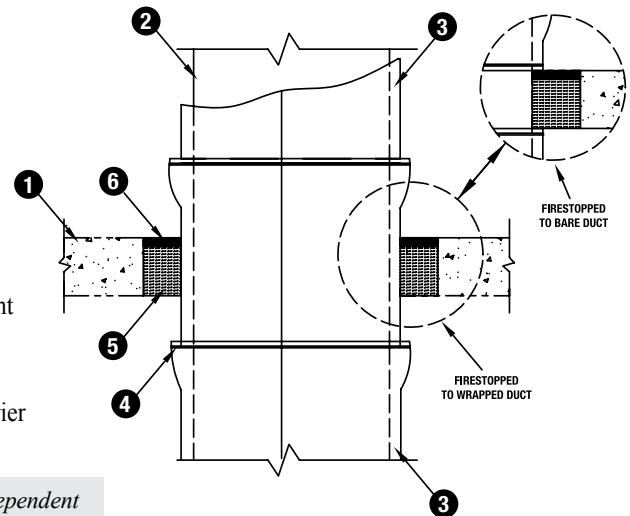
*Note: System integrity is limited by quality of installation. Consult current independent testing laboratories (e.g. Intertek, UL) for Design or System Details.*

## 3M™ Fire Duct Wrap 615+ Typical Through Penetration Firestop System (Figure 6)

1- or 2-Hour Through Penetration Systems  
4-1/2 inch (11.4 cm) Concrete Floor or Wall

1. Floor/Ceiling or Wall Assembly
  2. Duct
  3. One or Two Layers 3M™ Fire Barrier Duct Wrap 615+
  4. Banding or Pinning
  5. 3M™ Fire Barrier Packing Material PM 4, 4 pcf mineral wool or scrap duct wrap (min. 33% compressed)
  6. 3M™ Fire Barrier Water Tight Sealant 1000 NS, 3M™ Fire Barrier Water Tight Sealant 1003 SL, or 3M™ Fire Barrier Silicon Sealant 2000+
- Note: Sealant to be applied at a minimum 5/8" (15.9 mm) depth

For Wall Assembly Apply Sealant To Both Sides of Wall (note: 3M™ Fire Barrier Water Tight Sealant 1003 SL Not Suited For Wall Applications).



*Note: System integrity is limited by quality of installation. Consult current independent testing laboratories (e.g. Intertek, UL) for Design or System Details.*

For technical data and properties of 3M™ Fire Barrier Water Tight Sealant 1000 NS, 3M™ Fire Barrier Water Tight Sealant 1003 SL or 3M™ Fire Barrier Silicone Sealant 2000+, see separate product data sheets available from your 3M representative or go to [www.3M.com/firestop](http://www.3M.com/firestop).

## 9. Maintenance

No maintenance is expected when installed in accordance with the applicable Intertek, UL or other third-party listed system and in accordance with 3M™ Fire Barrier Duct Wrap 615+ Installation Guidelines. Once installed, if any section of the 3M™ Fire Barrier Duct Wrap 615+ is damaged such that the blanket requires repair, the following procedure will apply:

1. If the blanket has not been damaged but the foil has ripped, seal the rips with aluminum foil tape.
2. If the blanket has been damaged:
  - a. The damaged section should be removed by cutting the steel banding or removing the clips holding it in place.
  - b. A new section of the same dimension should be cut from a roll of 3M™ Fire Barrier Duct Wrap 615+, either 24 in. (60.9 cm) or 48 in. (121 cm) wide.
  - c. The new section should be placed and fitted ensuring the same overlap that existed previously.
  - d. The steel banding should be placed around the material and tensioned so as to sufficiently hold the 3M™ Fire Barrier Duct Wrap 615+ in place.

## 10. Availability

3M™ Fire Barrier Duct Wrap 615+ is available from 3M Authorized Fire Protection Products Distributors and Dealers. 3M™ Fire Barrier Duct Wrap 615+ is available in 24 in x 25 ft, Roll (1/case), 48 in x 25 ft, Roll (1/case). 3M™ Fire Barrier Duct Wrap Collars 615+ are available in 1.5 in x 6 in x 25 ft, Rolls (4/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](http://www.3m.com/firestop).

## 11. Safe Handling Information

Prior to handling or disposal of 3M Fire Protection Products, consult all relevant Material Safety Data Sheets (MSDS).

### 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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