



3M™ Fire Barrier Duct Wrap 615+

Product Data Sheet

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.¹ It is used to fire rate commercial kitchen grease ducts as well as ventilation ducts. 3M™ Fire Barrier Duct Wrap 615+ is a proven alternative to 1- or 2-hour fire-resistant rated shaft enclosures for grease ducts (ICC-ES ESR-1255). With its excellent insulating capabilities, low weight and thin profile, it is an ideal choice for a duct enclosure system. This non-asbestos² wrap installs easily due to its high flexibility and strength.

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.



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 for grease ducts 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 Silicone Sealant 2000+ 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. 3M™ Fire Barrier Duct Wrap 615+ also provides a firestop solution where a T-rating is required for penetrations located outside wall cavities or outside fire-resistance rated shaft enclosures.

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.

T-rating for metallic through-penetrating items: 3M™ Fire Barrier Duct Wrap 615+ is used in conjunction with 3M Fire Barrier sealants to achieve up to 2-hour equal F & T-ratings in ASTM E 814 (UL 1479) tested through-penetrations.

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 aluminized polyester foil. Duct Wrap density shall be nominal 6 pcf (96 kg/m³) and have a nominal 1-1/2 in. (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 $6.3 \frac{^\circ F \cdot ft^2 \cdot hr}{Btu}$.

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.

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

Typically Specified Division or Section

Division 7 – Thermal and Moisture Protection
 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

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ICC-ES ESR-1255



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



CSFM
 LISTING No.
 2440-0941:112



4. Performance & Typical Physical Properties

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

Thermal Conductivity:	Temp.	$\frac{Btu - in.}{hr - ft^2 - ^\circ F}$	$\frac{W}{m^2 - K}$
	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

Single layer R-Value 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

Grease Duct Listings – ASTM E 2336 / ICC-ES AC101

Fire Resistive Rating	Enclosure System	Third-Party Testing Services Design Listing	Description
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

Ventilation Duct Listings – ISO 6944

Fire Resistive Rating	Enclosure System	Third-Party Testing Services Design Listing	Description
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 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:

ICC-ES AC101	ASTM E 2336	ASTM E 119	ASTM E 814	ASTM E 84
ASTM E 136	ASTM C 518	ISO 6944-85		

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
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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 2009 Edition – Section 6.6.2	NFPA 92B 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. Safe Handling Information

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

9. Availability

Description	Size	Unit	Billing UPC Number	Units/Case	Price Unit
Space-saving, flexible duct wrap with up to 2-HR protection	24" x 25' Roll	Roll	00051115-54905-2	1	EA
Space-saving, flexible duct wrap with up to 2-HR protection	48" x 25' Roll	Roll	00051115-54906-9	1	EA
Collar for butted joint installations	6" x 25' Roll	Roll	00051115-18804-6	4	EA

For additional technical and purchasing information regarding 3M Fire Protection Products, please call: 1-800-328-1687 or visit www.3m.com/firestop. 3M™ Fire Barrier Duct Wrap 615+ is available from 3M Authorized Fire Protection Products Distributors and Dealers.



Building and Commercial Services Division

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