

Fire Protection Products

3M™ Fire Barrier Duct Wrap 615+



Technical Data Sheet

February / 2021

Product Description



Global Solutions, Direct to Your Business

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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 density¹. 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 C892 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.

Product Features

- Two-layer wrap for grease ducts rated as a shaft alternative per ASTM E2336
- Zero clearance to combustibles 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 Type A
- 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



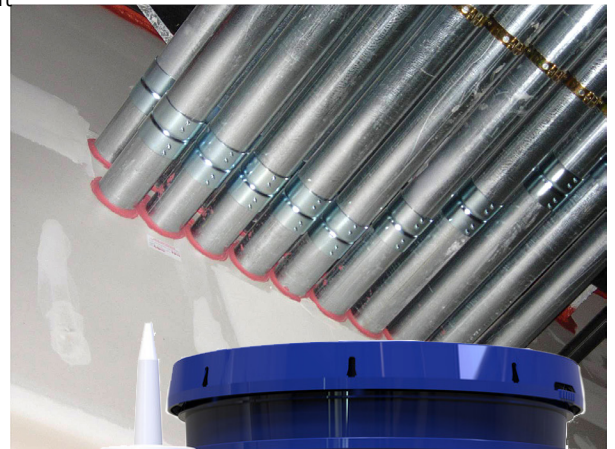
INTUMESCENT SEALANT FOR PENETRATIONS AND CONSTRUCTION JOINTS

Intumescent Firestop Sealant

SpecSeal® LCI Firestop Sealant is a water-based intumescent sealant intended for a wide range of penetration and construction joint applications. LCI Sealant has excellent caulking properties making it easy to apply in vertical applications as well as overhead.

Features & Benefits

- Gun Grade material available in caulk tubes, sausages and pails
- Tested for use in penetration and construction joint configurations
- Paintable
- Used in over 500 UL® Certified Systems



ORDERING INFORMATION

Catalog Number	UPC Number	Description	(UOM) Qty.	Case Qty.	Weight (Each)
LCI300	730573011706	SpecSeal® Series LCI Intumescent Sealant 10.1 oz Tube	1	12	1.05 lbs (0.48 kg) 18.2 Cu In (300 ml)
LCI305	730573011751	SpecSeal® Series LCI Intumescent Sealant 5 Gallon Pail	1	1	61.39 lbs (27.84 kg) 1,155 Cu In (19.0 L)
LCI320	730573011720	SpecSeal® Series LCI Intumescent Sealant 20 oz Sausage	1	12	1.96 lbs (0.89 kg) 36 Cu in (592 ml)
LCI329	730573011799	SpecSeal® Series LCI Intumescent Sealant 29 oz Quart Tube	1	12	2.94 lbs (1.33 kg) 52 Cu in (858 ml)

TEST STANDARDS: ASTM E814 (UL 1479), ASTM E1966 (UL 2079), CAN/ULC-S115



[Click here to learn more about](#)



ZSTI3529-11121



Technical Data Sheet

3M™ Venture Tape™ FSK Facing Tape
1525CW

Product Description

3M™ Venture Tape™ FSK Facing Tape 1525CW is a foil/scrim/kraft (FSK) lamination coated with a cold weather solvent acrylic pressure sensitive adhesive. 3M™ Venture Tape™ 1528CW is a FSK 2.5" disc version of 1525CW.

Product Features

- Cold weather adhesive performs well over a wide temperature range
- Excellent performance in demanding heat and humidity conditions
- Conforms well to irregular surfaces

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Test Method	Value
Color		Natural Aluminum
Adhesive Type		Acrylic
Backing		FSK
Backing Thickness	ASTM D3652	0.1 mm (4 mil)
Total Tape Thickness	ASTM D3652	0.14 mm (5.5 mil)
Liner		Release Liner

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C (72 °F)	7.2 N/cm (66 oz/in) ¹
Elongation at Break	ASTM D3759		2 %
Tensile Strength	ASTM D3759		68.3 N/cm (39 lb/in)

¹ 12 in/min (300 mm/min)

Attribute Name	Value
Long Term Temperature Resistance	116 °C (240 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) ¹

¹ Long Term (day, weeks)

Handling/Application Information

Application Examples

- Sealing applications for fibrous ductboard, FSK-faced duct wrap and sheet metal ducts.
- Vapor seal for reinforced aluminum faced fiberglass or mineral wool thermal insulation.

Certifications/Standards

Certifications

- UL723 Classified (10/10 Flame/Smoke Rating) [UL file #R10984]

- CAN/ULC S102 (10/10 Flame/Smoke Rating) [UL file #R10984]
- Facing meets ASTM C1136, type II and IV

Storage and Shelf Life

Store in a clean, dry place. Temperature of 40-80°F (4-26°C) and 40 to 50% relative humidity are recommended. To obtain best performance, use this product within 24 months from date of manufacture.

Available Sizes

Attribute Name	Value
Standard Roll Length	45.7 m (50 yd)

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

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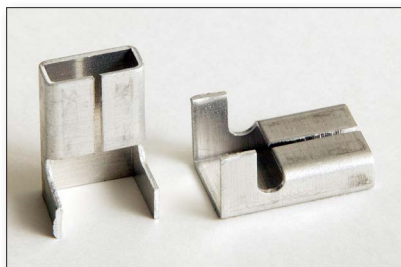
ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M
Industrial Adhesives and Tapes Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550

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INSUL-MATE™ **Wing Seals**



RPR Products manufactures its wing seals in Stainless Steel (T304, T316), Aluminum and Galvanized Steel to match the strapping being used. Our seals are precision made in house, for exact fit, ease of application and maximum binding and tensioning on strapping. Wing seals are manufactured to the follow ASTM Standards. Aluminum (ASTM B209), Stainless Steel (ASTM A-240), Galvanized (ASTM- A-653)

Stocked sizes are as follows:

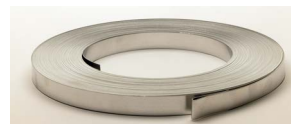
Aluminum	Stainless Steel	Galvanized
3/8"	3/8"	N/A
1/2"	1/2"	1/2"
3/4"	3/4"	3/4"



INSUL-MATE™ RPR Insul-Mate™ Strapping

STRAPPING

Insul-Mate™ strapping is slit from T304 and T316 (ASTM A-240), Aluminum alloy 3003, 3105 (ASTM B209) and Galvanized Steel G90 LFG (ASTM A-653). The edges are conditioned for safe handling. Aluminum in 3/8", 1/2" and 3/4" widths. Stainless Steel (T304 & T316) in 3/8", 1/2" and 3/4", T304 in 5/8" widths x .015" and .020" thickness. Galvanized in 1/2" and 3/4" widths x .020" thickness. Available in ribbon wound or 100# oscillated coils.

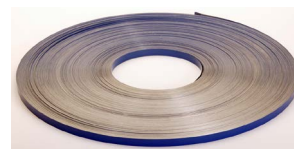


PACKAGING

ALUMINUM	STAINLESS STEEL	GALVANIZED
3/8" - 8# ctn	3/8" - 22# ctn	-
1/2" - 10# ctn	1/2" - 28# ctn	1/2" - 28# ctn
-	5/8" - 35# ctn (T304)	-
3/4" - 15# ctn	3/4" - 42# ctn	3/4" - 42# ctn

COLOR CODED STRAPPING

Insul-Mate™ color-coded strapping is designed to be used as a line identifier. Stainless steel and aluminum are coated in Industry Standard colors. Insul-Mate™ color coded stainless steel strapping is slit to 1/2" and 3/4" widths from T302/304 stainless steel and is available in ribbon wound or 100# oscillated coils. Insul-Mate™ color-coded aluminum strapping is also available in 1/2" width and is slit from ASTM B209 specification aluminum in ribbon wound coils. Both stainless steel and aluminum strapping are coated with a unique two coat baked on paint system which offers superior resistance to fading, cracking and peeling.



INDUSTRY STANDARD COLORS		
Stainless Steel	Blue/Black	No Asbestos
Stainless Steel	Blue/Blue	No Asbestos
Stainless Steel	White/Red	-
Stainless Steel	Marine Corp Green	-
Aluminum	Red/Blue	No Asbestos

Special colors available on special quote and minimum quantities.

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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 combustibles 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 E2336 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 E814 (UL 1479) tested through-penetrations.



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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 1832 °F (1000 °C). The blanket thermal resistance (R-value) at ambient temperature shall be minimum $6.3 \text{ }^{\circ}\text{F} \text{ } ft \frac{^{\circ}\text{F} \cdot ft^2 \cdot hr}{Btu}$. 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.

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

3M™ Fire Barrier Duct Wrap 615+ has been tested in accordance with the following: ICC-ES AC101, ASTM E2336, ASTM E119, ASTM E814, ASTM E84, ASTM E136, ASTM C518, ISO 6944-85.

3M™ Fire Barrier Duct Wrap 615+, when installed per ASTM E2336 tested Grease Duct Design Listings, meets the following code requirements for field-applied grease duct enclosures:

NFPA 96

International Mechanical Code®

Uniform Mechanical Code

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3M™ Fire Barrier Duct Wrap 615+

Performance and 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 Characteristics (ASTM E84)	Foil Encapsulated Blanket: Flame Spread Index: 0 Smoke Developed Value: 0		
Thermal Conductivity	Temperature	$\frac{Btu \cdot in}{hr \cdot ft^2 \cdot ^\circ F}$	$\frac{W}{m \cdot K}$
	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
Linear Shrinkage 24 Hour @ 2012°F (1100°C)	1.2%		
Noise Reduction Coefficient – NRC (ASTM C423)	0.80		
Mold and Mildew Resistance (ASTM C1338)	Devoid of growth		
Duct Service Temperature (ASTM C411)	Maximum Operating Temperature: 250°F (121°C) ³		

³ For ducts that operate with a surface temperature exceeding 250°F, contact your local 3M representative for further installation considerations.

3M Fire Protection Products

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Installation Techniques

Consult a 3M Authorized Fire Protection Products Distributor Sales Representative for applicable UL, ULC, Intertek or other third-party drawings and system details.

Installation Details: Tested and listed system details must be followed for each specific application. System examples are listed below:

Grease Duct Listings – ASTM E2336 / 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 Intertek 3MU/FRD 120-18 Intertek 3MU/FRD 120-19	Rectangular Rectangular Round

Ventilation Duct Listings – ISO 6944 Type A

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 UL HNLJ.V-27 Intertek 3MU/DI 120-01	Rect. & Round (1 hour) Rectangular (2 Hour) Rect. & Round (2 Hour)

Through Penetration T-Ratings – ASTM E814 (UL 1479)

Protected Item	UL System	F & T Rating
Floor Sink	F-A-1160	2 Hour
Metal Pipe	F-A-1057	2 Hour

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" (60.9cm) or 48" (121cm) wide.
 - c. The new section should be placed and fitted ensuring the same overlap that existed previously (i.e. the original installation method).
 - 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.

3M Fire Protection Products

3M™ Fire Barrier Duct Wrap 615+

Storage and Shelf Life	<p>3M™ Fire Barrier Duct Wrap 615+ rolls are 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.</p> <p>Lot numbering (e.g. 1807200223): First two digits = last two digits of the year manufactured (2018=18), third and fourth digit = month of manufacture, fifth and sixth digits = is the day of manufacture, seventh and eighth digits = crew code from fiber blanket, last two digits = day of encapsulation.</p>
Availability	<p>Available from 3M Authorized Fire Protection Products Distributors.</p> <p>For additional technical and purchasing information, call 1-800-328-1687 or visit 3M.com/firestop.</p>
Safe Handling	<p>Consult Safety Data Sheet prior to handling and disposing of 3M™ Fire Barrier Duct Wrap 615+.</p>
Technical Information	<p>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.</p>
Product Use	<p>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.</p>
Warranty, Limited Remedy and Disclaimer	<p>Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.</p>



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