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3M™ Heavy Duty Aluminum Foil Tape 438

Product Description

3M™ Heavy Duty Aluminum Foil Tape 438 has a transparent acrylic adhesive to use when a heavier weight foil is required.

Product Features

- Flame resistant. Meets U.L. 723, Class “L” low flammability rating (File R 7311).
- Meets requirements of FAR 25.853(a).
- Foil backing provides an excellent reflective surface for both heat and light.
- Aluminum foil backing and acrylic adhesive system combine to offer long aging both indoors and out.
- The high coefficient of expansion offered by the aluminum allows expansion and contraction with changes in temperatures, along with thermal conductivity.
- Performs in a range from -65° to over 300°F (-54° to 149°C). Higher temperatures for shorter periods of time.



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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

Property	Values		Method
Color	Shiny Silver		
Total Tape Thickness	0.18 mm	7.2 mil	ASTM D3652
Backing Thickness	0.13 mm	5.0 mil	ASTM D3652
Backing	Aluminum Foil		
Adhesive	Acrylic		
Approximate Weight	0.0109 g/m/24 mm	0.0217 lb/yd/in	
Water Vapor Transmission Rate	0.77 g/m ² /24 hr	0.05 g/100 in ² /24 hr	ASTM D3833

Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion	4.7 N/cm	43 oz/in	ASTM D3330	Stainless Steel
Tensile Strength	103 N/cm	59 lb/in	ASTM D3759	
Elongation at Break	10 %		ASTM D3759	
Temperature Use Range	-54 to 149 °C	-65 to 300 °F		

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Available Sizes

Property	Values	
Standard Roll Length	55 m	60 yd

Handling/Application Information

Application Ideas

- Barrier, protector and thermal conductor in appliance (electronics) industry.
- Use when customer specification calls for a 5-mil (0.13 mm) foil as a barrier for vinyl coated wires in many applications in appliance industry.
- Patch tears in skins of aircraft and truck trailers.

Storage and Shelf Life

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton. To obtain best performance, use this product within 24 months from date of manufacture.

Industry Specifications

UL 723, Class “L” low flammability rating (File R 7311)
FAR 25.853(a)

References

1. Safety Data Sheet
Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=438

ISO Statement

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

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Product Selection and 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. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

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