



# Heavy Duty Aluminum Foil Tape

## 438

### Technical Data

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

Product Construction	Backing	Adhesive	Color	Standard Roll Length
	Aluminum foil	Acrylic	Shiny silver	60 yds. (55 m)

### Typical Physical Properties

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

		ASTM Test Method
Adhesion to Steel:	43 oz./in. width (47 N/100 mm)	D-3330
Tensile Strength:	59 lbs./in. width (1033 N/100 mm)	D-3759
Elongation at Break:	10%	D-3759
Backing Thickness:	5.0 mils (0.13 mm)	D-3652
Tape Thickness:	7.2 mils (0.18 mm)	D-3652
Temperature Use Range:	-65° to 300°F (-54° to 149°C)	
Water Vapor Transmission Rate:	0.1 gms H <sub>2</sub> O/100 sq. in./24 hrs. (1.55 g/m <sup>2</sup> /24 hrs.)	D-3833
Weight:	0.0217 lbs./yd./in. width (0.0109 kg/m/24 mm)	

### Features

- Flame resistant. Meets U.L. 723, Class “L” low flammability rating (File R 7311).
- Meets requirements of F.A.R. 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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## 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.

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## Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

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## Shelf Life

To obtain best performance, use this product within 24 months from date of manufacture.

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## Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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**ISO 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



### Industrial Business Industrial Adhesives and Tapes Division

3M Center, Building 21-1W-10, 900 Bush Avenue  
St. Paul, MN 55144-1000  
800-362-3550 • 877-369-2923 (fax)  
www.3M.com/industrial



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