

Technical Data Sheet

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.

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	Additional Information
Backing	Aluminum Foil	
Adhesive Type	Acrylic	
Color	Shiny Silver	
Backing Thickness (mm)	0.13 mm	View 
Test Method: ASTM D3652		
Total Tape Thickness (mil)	7.2 mil	View 
Test Method: ASTM D3652		
Total Tape Thickness (mm)	0.18 mm	View 
Test Method: ASTM D3652		

Backing Thickness	5 mil	View 
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Test Method: ASTM D3652		
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Approximate Weight	0.0109 g/m/24 mm	
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Approximate Weight	0.0217 lb/yd/in	
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Water Vapor Transmission	0.77 g/m ² /24 hr	View 
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Test Method: ASTM D3833		
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Water Vapor Transmission	0.05 g/100 in ² /24 hr	View 
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Test Method: ASTM D3833		
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Typical Performance Characteristics

Property	Values	Additional Information
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Tensile Strength	103 N/cm	View 
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Test Method: ASTM D3759		
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180° Peel Adhesion	4.7 N/cm	View 
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Test Method: ASTM D3330		
Notes: 12 in/min (300 mm/min)		

180° Peel Adhesion	43 oz/in	View 
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Test Method: ASTM D3330		
Notes: 12 in/min (300 mm/min)		

Tensile Strength (lb/in)	59 lb/in	View 
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Test Method: ASTM D3759		
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Elongation at Break (%)	10 %	View 
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Test Method: ASTM D3759		
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Long Term Temp C	149 °C	View 
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Test Condition: Long Term (day, weeks)		
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Minimum Long Term Temperature Resistance	-54 °C	View 
Test Condition: Long Term (day, weeks)		
Long Term Temp F	300 °F	View 
Test Condition: Long Term (day, weeks)		
Minimum Long Term Temperature Resistance	-65 °F	View 
Test Condition: Long Term (day, weeks)		

Available Sizes

Property	Values	Additional Information
Standard Roll Length	55 m	
Standard Roll Length	60 yd	

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)

Automotive Disclaimer

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Bottom Matter

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Handling/Application Information

Application Examples

- 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.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40067909/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=438

Family Group

Link Tags:

438

Products	Backing	Adhesive Type	Total Tape Thickness (mm)	Long Term Temp C	Long Term Temp F
438	Aluminum Foil	Acrylic	0.18 mm	149 °C	300 °F

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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