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3M™ Aluminum Foil Tape 431

Product Description

3M™ Aluminum Foil Tape 431 is a 2-mil nominal dead soft aluminum foil with transparent acrylic adhesive for many permanent sealing, holding, splicing or masking applications requiring the protection offered by a foil backing.

IMPORTANT: 3M™ Aluminum Foil Tape 431 is not intended for medical usage. Neither 3M nor the Food and Drug Administration have evaluated or reviewed this tape for medical application. User assumes all risk and liability whatsoever in connection with usage of product in a medical application.

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.
- Good aging performance both indoors and outdoors.
- Low moisture vapor transmission rate offers excellent sealing and patching performance.
- Best results attained when applied to clean dry surface above 32°F (0°C).



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	0.08 mm	3.1 mil	ASTM D3652
Backing Thickness	0.05 mm	1.9 mil	ASTM D3652
Backing	Aluminum Foil		
Adhesive	Acrylic		
Approximate Weight	0.0049 g/m/24 mm	0.0096 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	4.5 N/cm	41 oz/in	ASTM D3330	Stainless Steel
Tensile Strength	33.3 N/cm	19 lb/in	ASTM D3759	
Elongation at Break	5 %		ASTM D3759	
Temperature Use Range	-54 to 149 °C	-65 to 300 °F		

Available Sizes

Property	Values	
Standard Roll Length	55 m	60 yd

Handling/Application Information

Application Ideas

- Seal and patch tears in truck trailers, as well as other outdoor equipment.
- Reflect heat away from sensitive areas.
- Thermal heat conduction.
- General purpose holding, patching, sealing applications – indoors or out.
- Splicing of thin gauge foils.
- Good maskant in electroplating of aluminum because it will not contaminate the bath.
- Decorative.

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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

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Aluminum-Foil-Tape-431?N=5002385+3293241743&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=431

Family Group

	431	439
Color	Shiny Silver	Shiny Silver
Total Tape Thickness (mm)	0.08	0.08
Backing Thickness (mm)	0.05	0.05
Backing	Aluminum Foil	Aluminum Foil
Adhesive	Acrylic	Acrylic
Tensile Strength (N/cm)	33.3	31.5

ISO Statement

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

Information

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