



Aluminum Foil Tape

431 • 439L (Linered)

Technical Data

May, 2017

Product Description

3M™ Aluminum Foil Tape 431 and 439L 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 and 439L are 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 Construction

Backing	Adhesive	Color	Liner (3M tape 439L)	Standard Roll Length
Aluminum foil	Acrylic	Shiny silver	Tan Kraft paper with silicone	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:		41 oz./in. width (45 N/100 mm)	D-3330
Tensile Strength at Break:	3M tape 431	19 lbs./in. width (338 N/100 mm)	D-3759
	3M tape 439L	18 lbs./in. width (315 N/100 mm)	D-3759
Elongation at Break:	3M tape 431	5%	D-3759
	3M tape 439L	3%	
Backing Thickness:		1.9 mils (0.05 mm)	D-3652
Total Tape Thickness:		3.1 mils (0.08 mm)	D-3652
Liner Thickness:	3M tape 439L	5.6 mils (0.14 mm)	D-3652
Water Vapor Transmission Rate:		0.05 gms H ₂ O/100 sq. in./24 hrs. (0.77 g/m ² /24 hrs.)	D-3833
Temperature Use Range:		-65° to 300°F (-54° to 149°C)	
Weight:		0.0096 lbs./yd./in. width (.0049 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.
- 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).

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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.

Storage

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

Shelf Life

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

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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ISO 9001

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



Industrial Adhesives and Tapes Division

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Printed in U.S.A.
©3M E 70-0709-5013-7 (5/17)