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[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# 3M

## Aluminum Foil Tape

### 431 • 439L (Linered)

#### Technical Data

#### 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 release	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:	0.1 gms H <sub>2</sub> O/100 sq. in./24 hrs. (1.55 g/m <sup>2</sup> /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).

# 3M™ Aluminum Foil Tape

431 • 439L (Lined)

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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.

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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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## Warranty and Limited Remedy

Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.

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## Limitation of Liability

Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**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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