

3M

High Temperature Aluminum Foil Tape

433 • 433L (Linered)

Technical Data

Product Description 3M™ High Temperature Aluminum Foil Tape 433 has a silicone adhesive that can be used in many high temperature applications. Also comes in an easy-release film liner.

Product Construction	Backing	Adhesive	Color	Liner (3M tape 433L)	Standard Roll Length
	Aluminum foil (Alloy 1100-0)	Silicone (clear)	Shiny silver	Clear, easy-release film	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:	3M tape 433	40 oz./in. width (43.8 N/100 mm)		D-3330
	3M tape 433L	38 oz./in. width (42.0 N/100 mm)		D-3330
Tensile Strength:		20 lbs./in. width (350 N/100 mm)		D-3759
Elongation at Break:		3.5%		D-3759
Backing Thickness:		2.0 mils (0.05 mm)		D-3652
Total Tape Thickness:	3M tape 433	3.6 mils (0.09 mm)		D-3652
	3M tape 433L	3.5 mils (0.09 mm)		D-3652
Liner Thickness:	3M tape 433L	2.9 mils (0.07 mm)		D-3652
Water Vapor Transmission Rate:		0.1 gms H ₂ O/100 sq. in./24 hrs. (1.55 g/m ² /24 hrs.)		
Temperature Use Range:				D-3833
Permanent Appl.		-65° to 600°F (-54° to 316°C)		
Removable Appl.		-65° to 375°F (-54° to 190°C)		
Weight:		0.0096 lbs./yd./in. width (.0049 kg/m/24 mm)		

Features

- Flame resistant – meets requirements of F.A.R. 25.853(a).
- 3M™ High Temperature Aluminum Foil Tape 433L can easily be die-cut into special sizes or shapes.
- Best results obtained when applied to a clean surface above 32°F (0°C), but tape can be applied from 0°F to 200°F (-18°C to 93°C).
- Performance range from -65°F to over 600°F (-54°C to over 316°C). Adhesive will gradually thermoset at high temperatures. As it thermosets, the adhesive mass becomes firm and gradually loses its pressure sensitivity but will continue to hold the tape in place.

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Application Ideas

- Moisture barrier around doors and windows to help prevent fogging of glass.
- Seal for automotive air bag inflators.
- To hold insulation on hot air ducts in industry.
- Cover resistance wire heating elements to distribute the heat.
- Splice jumbo rolls of aluminum foil or holding the last lap of narrow width rolls in preparation to annealing the rolls.
- Ideal as a heat reflective wrap along or over insulations, applied to tubes, engine support structures, missile ground handling equipment, or as a protector from other heat source areas such as hot areas in steel mills.
- Good holding, splicing, patching or general protecting tape on many applications involving high temperatures.

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 18 months from date of manufacture.

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.



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