

3M™ High Temperature Aluminum Foil Tape 433

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 (3M™ High Temperature Aluminum Foil Tape 433L).

Product Features

- Flame resistant – meets requirements of FAR 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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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	0.09 mm	3.6 mil	ASTM D3652
Backing Thickness	0.05 mm	2 mil	ASTM D3652
Backing	Aluminum Foil (Alloy 1100-0)		
Adhesive	Silicone (clear)		
Approximate Weight	0.0049 g/m/24 mm	0.0096 lb/yd/in	
Water Vapor Transmission Rate	1.55 g/m ² /24 hr	0.1 g/100 in ² /24 hr	ASTM D3833

Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion	4.4 N/cm	40 oz/in	ASTM D3330	Stainless Steel
Tensile Strength	35 N/cm	20 lb/in	ASTM D3759	
Elongation at Break	3.5 %		ASTM D3759	

Temperature Use Range		Method	Test Condition
-54 to 316 °C	-65 to 600 °F		
-54 to 316 °C	-65 to 600 °F	ASTM D3833	Permanent Application
-54 to 190 °C	-65 to 375 °F	ASTM D3833	Removable Application

Property: Temperature Use Range

Handling/Application Information

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.

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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 18 months from date of manufacture.

Industry Specifications

FAR 25.853(a)

Information

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References

Safety Data Sheet (SDS)

https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=433

ISO Statement

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

