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English
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Technical Data Sheet

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.

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	Additional Information
Backing	Aluminum Foil	
Adhesive Type	Silicone (clear)	
Color	Silver	
Backing Thickness (mm)	0.05 mm	View
Test Method: ASTM D3652		
Total Tape Thickness (mil)	3.6 mil	View
Test Method: ASTM D3652		
Total Tape Thickness (mm)	0.09 mm	View
Test Method: ASTM D3652		

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Backing Thickness	2 mil	View
Test Method: ASTM D3652		
Approximate Weight	4.4 g/m/24 mm	
Approximate Weight	0.0094 lb/yd/in	

Typical Performance Characteristics

Property	Values	Additional Information
Tensile Strength	35 N/cm	View
Test Method: ASTM D3759		
180° Peel Adhesion	4.4 N/cm	View
Test Method: ASTM D3330 Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	40 oz/in	View
Test Method: ASTM D3330 Notes: 12 in/min (300 mm/min)		
Tensile Strength (lb/in)	20 lb/in	View
Test Method: ASTM D3759		
Elongation at Break (%)	3.5 %	View
Test Method: ASTM D3759		
Long Term Temperature Resistance	316 °C	
Minimum Long Term Temperature Resistance	-54 °C	
Long Term Temperature Resistance	600 °F	
Minimum Long Term Temperature Resistance	-65 °F	

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Temperature Use Range	-54 - 190 °C

Temperature Use Range	-65 - 375 °F

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

FAR 25.853(a)

Bottom Matter

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Automotive Disclaimer

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Handling/Application Information

Application Examples

- Moisture barrier around doors and windows to help prevent fogging of glass.
- 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.

References

Property	Values

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3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40067935/
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

Family Group

Link Tags:

433

Products	Adhesive Type	Color	Backing Thickness (mm)	Total Tape Thickness (mm)	Tensile Strength	Long Term Temperature Resistance	Minimum Long Term Temperature Resistance
433	Silicone (clear)	Silver	0.05 mm	0.09 mm	35 N/cm	316 °C	-54 °C

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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