

# Technical data sheet



Product: 433

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: KLEBEBAND

Article group: EINSEITIG

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## 3M HIGH TEMPERATURE ALUMINIUM FOIL TAPE

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## Technical Data Sheet

### 3M™ High Temperature Aluminum Foil Tape 433

[Product Details](#)[Regulatory Info/SDS](#)

#### 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

Attribute Name	Test Method	Value
Color		Silver
Adhesive Type		Silicone (clear)
Approximate Weight		4.4 g/m/24 mm (0.0094 lb/yd/in)
Backing		Aluminum Foil
Backing Thickness	ASTM D3652	0.05 mm (2 mil)
Total Tape Thickness	ASTM D3652	0.09 mm (3.6 mil)

#### Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C (72 °F)	4.4 N/cm (40 oz/in) <sup>1</sup>
Elongation at Break	ASTM D3759		3.5 %
Tensile Strength	ASTM D3759		35 N/cm (20 lb/in)

<sup>1</sup> 12 in/min (300 mm/min)

Attribute Name	Test Condition	Value
Long Term Temperature Resistance		316 °C (600 °F) <sup>1</sup>
Minimum Long Term Temperature Resistance		-54 °C (-65 °F) <sup>1</sup>
Temperature Use Range	Removable Application	-54 - 190 °C (-65 - 375 °F)

<sup>1</sup> Long Term (day, weeks)

#### 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.

## **Industry Specifications**

FAR 25.853(a)

## **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.

## **Automotive Disclaimer**

**Select Automotive Applications:** This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

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## **ISO Statement**

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

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