



High Temperature Aluminum Foil Tape

433 • 433L (Linered)

Technical Data

Product Description A dead soft aluminum foil backing with a silicone adhesive that can be used in many high temperature applications. 433L tape offers an easy-release film liner.

| Product Construction | Backing | Adhesive | Color | Liner (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: | 433 | 40 oz./in width (43.8 N/100 mm) | D-3330 |
| | 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: | 433 | 3.6 mils (0.09 mm) | D-3652 |
| | 433L | 3.5 mils (0.09 mm) | D-3652 |
| Liner Thickness: | 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.) | D-3833 |
| Temperature Use Range: | 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) | |

- General Information**
- Flame resistant – meets requirements of F.A.R. 25.853(a).
 - 433L tape 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 92°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.

Shelf Life To obtain best performance, use this product within 18 months from date of manufacture and 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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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.

Features

| Features | Advantages | Benefits |
|---|--|--|
| <ul style="list-style-type: none">• Aluminum foil backing | <ul style="list-style-type: none">• Excellent protection• Heat reflective• Flame resistant | <ul style="list-style-type: none">• Helps protect parts from water, dust or chemical damage• Helps protect from heat damage• Will not support combustion |
| <ul style="list-style-type: none">• Silicone adhesive | <ul style="list-style-type: none">• Wide temperature range | <ul style="list-style-type: none">• Will seal or protect even under extreme temperature conditions |

Technical Information and Data

The technical information and data, recommendations, and other statements provided in this brochure are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be used with the 3M product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which 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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This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



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