



3M™ Aluminum Foil Tape 427

Last Revision Date: May, 2022

Product Description

3M™ Aluminum Foil Tape 427 combines a 3 mil nominal dead soft aluminum foil backing with a transparent acrylic adhesive. 3M aluminum foil tape 427 offers an easy-release liner.

Product Features

- Flame resistant. Meets U.L. 746C (File E 122798) and 723, Class “L” low flammability rating (File R 7311).
- 3M aluminum foil tape 427 can be certified to meet L-T-80C.
- Meets requirements of FAR 25.853(a).
- The very low moisture vapor transmission rate makes these tapes a good sealant.
- The acrylic adhesive, combined with the durable aluminum backing, offers ideal properties for long serviceable life in and outdoors.
- Good candidate as a maskant in electroplating of aluminum because it will not contaminate the bath.
- Aluminum backing provides excellent reflection of both heat and light.
- Best results obtained when applied to a clean, dry surface above 32°F (0°C).

IMPORTANT: These tapes are not intended for medical usage. Neither 3M nor the Food and Drug Administration have evaluated or reviewed this tape for medical application. 3M does not recommend or endorse the usage of the aluminum tape for medical application. User assumes all risk and liability whatsoever in connection with usage of product in a medical application.


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	Dead soft aluminum	
Adhesive Type	Acrylic	
Liner	Easy-release paper	
Liner Thickness	0.08 mm	
Color	Shiny silver	
Backing Thickness (mm)	0.07 mm	View


Test Method: ASTM D3652

Total Tape Thickness (mil)	4.6 mil	View 
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Test Method: ASTM D3652

Total Tape Thickness (mm)	0.12 mm	View 
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Test Method: ASTM D3652


Backing Thickness	2.8 mil	View 
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Test Method: ASTM D3652


Liner Thickness	3.1 mil	
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Approximate Weight	5.54 g/m/24 mm	
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Approximate Weight	0.012 lb/yd/in	
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Water Vapor Transmission	0.77 g/m ² /24 hr	View 
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Test Method: ASTM D3833

Water Vapor Transmission	0.05 g/100 in ² /24 hr	View 
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Test Method: ASTM D3833

Typical Performance Characteristics

Property	Values	Additional Information
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Tensile Strength	49 N/cm	View 
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Test Method: ASTM D3759

180° Peel Adhesion	5.5 N/cm	View 
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Test Method: ASTM D3330

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion	50 oz/in	View 
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Test Method: ASTM D3330

Notes: 12 in/min (300 mm/min)

Tensile Strength (lb/in)	28 lb/in	View 
Test Method: ASTM D3759		
Elongation at Break (%)	6 %	View 
Test Method: ASTM D3759		
Long Term Temperature Resistance	149 °C	
Minimum Long Term Temperature Resistance	-54 °C	
Long Term Temperature Resistance	300 °F	
Minimum Long Term Temperature Resistance	-65 °F	

Available Sizes

Property	Values	Additional Information
Standard Roll Length	55 m	
Standard Roll Length	60 yd	

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

UL 746C (File E 122798)

UL 723 Class "L" low flammability rating (File R 7311)

Can be certified to meet L-T-80C

FAR 25.853(a)

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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Bottom Matter

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Handling/Application Information

Application Examples

- Aircraft paint stripping maskant.
- Moisture barrier in "white goods" appliances.
- General purpose heat reflector and heat dissipater.
- Mechanically hold wires and cooling coils in "white goods" appliances.
- Repair tears on truck trailers and aircraft.
- Splicing of thin gauge foils.
- General purpose holding, patching, sealing applications – indoors and out.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40067903/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=427

Family Group

Link Tags:

• [427](#)

Products	Backing	Adhesive Type	Liner	Liner Thickness	Color	Backing Thickness (mm)	Total Tape Thickness (mm)	Tensile Strength	Long Term Temperature Resistance	Minimum Long Term Temperature Resistance
427	Dead soft aluminum	Acrylic	Easy-release paper	0.08 mm	Shiny silver	0.07 mm	0.12 mm	49 N/cm	300 °F	-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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