

November, 2019

3M™ Lead Foil Tape 421

Product Description

3M™ Lead Foil Tape 421 is backed with a rubber adhesive, offering excellent conformability in a variety of application conditions.

Product Features

- Very good conformability.
- Good thermal properties and will perform over a wide variety of temperature conditions (-60° to 225°F or -54° to 106°C). It has been used at higher temperatures for shorter duration.
- Electrically and thermally conductive.
- Can be die-cut into specific shapes.
- This material when disposed of separately is classified as RCRA hazardous waste. Please consult applicable Federal, State and local regulations for proper disposal.
- Elevated lead levels in water may result from long term submersion of this product.
- Best results are obtained when applied to a clean dry surface above 32°F (0°C). Also, by “feathering” the edges – rubbing the tape down with a smooth-edged plastic piece (or similar object) – the tape can be made to better conform to the substrate. This is especially important if the tape is to be used as a “thief” in electroplating where the edges must fully contact the metal base.



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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	Dark Silver		
Total Tape Thickness	0.17 mm	6.6 mil	ASTM D3652
Backing Thickness	0.1 mm	4 mil	ASTM D3652
Backing	Lead Foil		
Adhesive	Rubber (green)		
Approximate Weight	28.4 g/m/24 mm	0.061 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	4.9 N/cm	45 oz/in	ASTM D3330	Stainless Steel
Tensile Strength	26.3 N/cm	15 lb/in	ASTM D3759	
Elongation at Break	14 %		ASTM D3759	
Temperature Use Range	-51 to 107 °C	-60 to 225 °F		

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Available Sizes

Property	Values	
Standard Roll Length	33 m	36 yd

Handling/Application Information

Application Ideas

- Electroplating
- Radiation barrier
- Moisture barrier
- Chemical milling
- X-ray plate masking

Disposal and Safety Considerations

• Wear protective gloves when handling the tape as transfer of lead to the hands is possible. To ensure removal of any lead residue after use, wash hands with a soap specifically formulated to remove lead from the surface of the skin. This will minimize additional transfer of lead to other surfaces. • Lead will slowly leach into water when submerged. Leaching will accelerate as acidity increases. • This material when disposed of separately is classified as RCRA hazardous waste. Please consult applicable Federal, State and local regulations for proper disposal.

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.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
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References (continued)

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/%3M-Lead-Foil-Tape-421?N=5002385+3293242557&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=421

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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Information

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