

April, 2015

## 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, indoors and out.

### 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
Total Tape Thickness	0.16 mm	6.3 mil	ASTM D3652
Backing Thickness	0.1 mm	4 mil	ASTM D3652
Approximate Weight	0.034 g/m/24 mm	0.06 lb/yd/in	
Water Vapor Transmission Rate	1.55 g/m <sup>2</sup> /24 hr	0.1 g/100 in <sup>2</sup> /24 hr	ASTM D3833

## Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion	3.4 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		

## Available Sizes

Property	Values	
Standard Roll Length	33 m	36 yd

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## Handling/Application Information

### Application Ideas

- Electroplating
- Radiation barrier
- Moisture barrier
- Chemical milling
- X-ray plate masking
- Maskant during paint stripping
- Add weight (balance) to equipment parts (golf clubs, tennis rackets, etc.)

### Disposal and Safety Considerations

- Wear protective gloves and/or wash hands after working with tape.
- 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

1. 3m.com Product Page  
Url: [http://www.3m.com/3M/en\\_US/company-us/all-3m-products/~//3M-Lead-Foil-Tape-421?N=5002385+3293242557&rt=rud](http://www.3m.com/3M/en_US/company-us/all-3m-products/~//3M-Lead-Foil-Tape-421?N=5002385+3293242557&rt=rud)
2. Safety Data Sheet  
Url: [https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=421](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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## Technical Information

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