

# Technical Data Sheet

## 3M™ Lead Foil Tape 420 (Lined)

### Product Description

3M™ Lead Foil Tape 420 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.

### 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	Lead Foil	
Adhesive Type	Rubber (green)	
Liner	White, easy-release film	
Liner Thickness	0.09 mm	
Color	Dark Silver	
Backing Thickness (mm)	0.13 mm	<a href="#">View</a>

Test Method: ASTM D3652

Total Tape Thickness (mil)	7.6 mil	<a href="#">View</a> 
Test Method: ASTM D3652		

Total Tape Thickness (mm)	0.19 mm	<a href="#">View</a> 
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Test Method: ASTM D3652

Backing Thickness	5 mil	<a href="#">View</a> 
Test Method: ASTM D3652		

Liner Thickness	3.7 mil	
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Approximate Weight	35.2 g/m/24 mm	


Approximate Weight	0.075 lb/yd/in	
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Water Vapor Transmission	1.55 g/m <sup>2</sup> /24 hr	<a href="#">View</a> 
Test Method: ASTM D3833		


Water Vapor Transmission	0.1 g/100 in <sup>2</sup> /24 hr	<a href="#">View</a> 
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Test Method: ASTM D3833

### Typical Performance Characteristics

Property	Values	Additional Information
Tensile Strength	35 N/cm	<a href="#">View</a> 


Test Method: ASTM D3759

180° Peel Adhesion	4.9 N/cm	<a href="#">View</a> 
Test Method: ASTM D3330		
Notes: 12 in/min (300 mm/min)		

180° Peel Adhesion	45 oz/in	<a href="#">View</a> 
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Test Method: ASTM D3330

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

Tensile Strength (lb/in)	20 lb/in	View 
Test Method: ASTM D3759		


Elongation at Break (%)	12 %	View 
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Test Method: ASTM D3759

Long Term Temp C	107 °C	View 
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Test Condition: Long Term (day, weeks)		
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Minimum Long Term Temperature Resistance	-51 °C	
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Long Term Temp F	225 °F	View 
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Test Condition: Long Term (day, weeks)		
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Minimum Long Term Temperature Resistance	-60 °F	
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### Available Sizes

Property	Values	Additional Information
Standard Roll Length	33 m	
Standard Roll Length	36 yd	

### 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.

### Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications,

including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.

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## Bottom Matter

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## Trademarks

3M is a trademark of 3M Company.

## Handling/Application Information

Application Examples

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

## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/p/d/b40067913/">https://www.3m.com/3M/en_US/p/d/b40067913/</a>
Safety Data Sheet SDS	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=420 Lined">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=420 Lined</a>

## Family Group

Link Tags:

- 420 (Lined)

Products	Backing	Adhesive Type	Color	Backing Thickness (mm)	Total Tape Thickness (mm)	Tensile Strength	Long Term Temp C	Minimum	
								Long Term Temperature Resistance	Long Term Temp F

420 (Lined)	Lead Foil	Rubber (green)	Dark Silver	0.13 mm	0.19 mm	35 N/cm	107 °C	-51 °C	225 °F
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## ISO Statement

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

## Information

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