Lead Foil Tape
421

Technical Data

Product Description

A 4-mil lead foil backing with a rubber adhesive, offering excellent conformability in a variety of application conditions, indoors and out. It can be used as a maskant in electroplating and chemical milling, and as a moisture and radiation barrier in certain applications.

Product Construction

Backing	Adhesive	Color	Standard Roll Length
Lead foil	Rubber (green)	Dark silver	36 yds. (33 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:	31 oz./in. width (34 N/100 mm)	D-3330
Tensile Strength:	15 lbs./in. width (263 N/100 mm)	D-3759
Elongation at Break:	14%	D-3759
Backing Thickness:	4.0 mils (0.10 mm)	D-3652
Tape Thickness:	6.3 mils (0.16 mm)	D-3652
Temperature Use Range:	-60° to 225°F (-54° to 106°C)	
Water Vapor Transmission Rate:	0.1g H_2O/100 sq. in./24 hrs. (1.55 g/m^2 24 hrs.)	
Weight:	0.06 lbs./yd./in. width (0.034 kg/m/24 mm)	

General Information

- Very good conformability, easier and faster to work with than linered lead foil.
- Good thermal properties and will perform over a wide variety of temperature conditions (-65° to 225°F or -54° to 106°C). Has been used at higher temperatures for shorter durations.
- Electrically and thermally conductive.
- 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.

Shelf Life

To obtain best performance, use this product within 18 months from date of manufacture and store under normal conditions of 60º to 80ºF (16º to 27ºC) and 40 to 60% R.H. in the original carton.

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.)

Lead Foil Tape

421

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.

Features

Features	Advantages	Benefits
• Lead foil backing	• Blocks X-rays	• Permits masking of x-ray film
	• Excellent protection	• Helps protect parts from water, dust or chemical damage and radiation
	• Electrically conductive	• Helps minimize tape edge plating build-up ("thieving action")
	• Malleable	• Conforms to surface
	• Heavy	• Provides balance with little mass
• Rubber adhesive	• Good chemical resistance	• Helps minimize undercutting resulting in a straight masking line
	• Good solvent clean up	• Helps reduce clean up labor

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.

Limited Warranty and Limited Remedy

The 3M product will be free from defects in material and manufacture for a period of one (1) year from the date of manufacture. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If the 3M product is defective within the warranty period stated above, YOUR EXCLUSIVE REMEDY AND 3M'S SOLE OBLIGATION SHALL BE, AT 3M'S OPTION, TO REPLACE OR REPAIR THE 3M PRODUCT OR REFUND THE PURCHASE PRICE OF THE 3M PRODUCT.

Limitation of Liability

Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, warranty, negligence, or strict liability..

ISO 9002

This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

3M

Industrial Tape and Specialties Division

3M Center, Building 220-7W-03
St. Paul, MN 55144-1000
1 800 362 3550
1 800 223 7427 Fax on Demand
www.3M.com/industrialtape

70-0709-5012-9
January 31, 2001