



General Purpose Polyimide Film Tape

7413T / 7413TL

Technical Data

January, 2006

Product Description 3M™ General Purpose Polyimide Film Tape 7413T / 7413TL is a tape consisting of a polyimide film and silicone adhesive designed for solder masking or other very high temperature applications.

Product Construction	Backing Length	Adhesive	Liner	Color	Standard Roll
	Polyimide film	Silicone	Polyester	Amber	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:	18 oz./in. width (20 N/100 mm)	D-3330, Method A
Tensile Strength at Break:	29 lbs./in. width (508 N/100 mm)	D-3759
Elongation at Break:	62%	D-3759
Backing Thickness:	1.0 mil (0.025 mm)	D-3652
Total Tape Thickness:	2.4 mils (0.061 mm)	D-3652
Liner Release Force: (7413TL only)	5 gm/in.	D-3330, Method D
Temperature Use Range:	-100°F to 500°F (-73°C to 260°C)	

General Information

- At room temperature, the properties of polyimide and polyester films are similar. However, as the temperature increases, the properties of the polyimide film are less affected than polyester.
- Polyimide film does not soften at elevated temperatures, thus the film provides an excellent release surface at elevated temperatures.

Application Ideas

- Mask for protection of gold fingers of printed circuit boards during wave solder, solder reflow or solder dip process.
- Release surface in fabrication of parts cured at elevated temperatures.

3M™ General Purpose Polyimide Film Tape

7413T / 7413TL

Key Attributes	Features	Advantages	Benefits
	Polyimide film	Dimensionally stable at high temperatures	Higher productivity by reducing rework
		Flame retardant, chemical and radiation resistant	Protects surfaces, helping reduce replacement costs
	Silicone adhesive	High temperature performance reduces adhesive transfer	No cleaning required/helps increase productivity
	Moderate adhesion	Reduces adhesive transfer	No cleaning required/helps increase productivity

Shelf Life To obtain best performance, use this product within 18 months from date of manufacture and store under normal conditions of 60° to 80°F (15° to 27°C) and 40 to 50% R.H. in the original carton.

For Additional Information To request additional product information or to arrange for sales assistance, call toll free 1-800-251-8634. Address correspondence to: 3M Electronics Markets Materials Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-634-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Product Use All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors 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.

Warranty and Limited Remedy Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 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 application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.

Limitation of Liability Except where prohibited by law, 3M and seller 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 warranty, contract, negligence or strict liability.



3M Electronics

3M Center, Building 21-1W-10, 900 Bush Avenue
St. Paul, MN 55144-1000
1-800-251-8634 phone
651-778-4244 fax
www.3M.com/electronics



Recycled Paper
40% pre-consumer
10% post-consumer

Printed in U.S.A.
©3M 2006 60-5002-0102-9 (1/06)