



Lined Low Static Polyimide Film Tape 5433

Technical Data

June 1995

Product Description 5433 tape is a lined version of 3M 5419 tape. A translucent, polyimide film-backed silicone adhesive tape with unique and extremely low electrostatic discharge properties.

Construction	Backing	Adhesive	Color	Standard Roll Length
	Polyimide	Silicone	Amber	36 yds. (33 m)

**Typical Physical
Properties and
Performance
Characteristics**

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:	20 oz./in width (22N/100 mm)	D-3330
Tensile Strength:	33 lbs./in. width (578 N/100 mm)	D-3759
Elongation at Break:	60%	D-3759
Backing Thickness:	1 mil (.03 mm)	D-3652
Total Tape Thickness:	2.7 mils (.07 mm)	D-3652
Temperature Use Range:	-100°F. to +500°F. (-73°C. to +260°C.)	
Dielectric Strength:	7000 volts	
Insulation Resistance:	>1*10 ⁶ ohms	
Static Charge:	(measured @ 50% RH, 70°F (21°C) in an ESD controlled environment)	
Removal from liner:	<100 volts	
Removal from PWB:	Dependent on PWB substrate, generally less than 500 volts	

General Information

- 5433 tape employs a proprietary technology that results in extremely low electrostatic discharge at unwind and removal from the PWB. Conventional polyimide tapes can typically generate over 10,000 volts during use which can damage board mounted electronic components. 5433 tape overcomes this problem without any of the typical drawbacks of conventional “anti-static” or “static-free” tapes (e.g., variable adhesion and opaqueness).
- At room temperature, the properties of polyimide and polyester film are similar. However, as the temperature increases or decreases, 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.

Lined Low Static Polyimide Film Tape

5433

Application Ideas

- Mask for many printed circuit boards during wave solder or solder dip process.
- Release surface in fabrication of many parts cured at elevated temperatures.

Features

- Polyimide film
- Silicone adhesive
- Low static
- Unique release liner

Advantages

- Dimensionally stable at high temperatures.
- Flame retardant and chemical resistant.
- High temperature performance reduces adhesive transfer.
- Virtually eliminates circuit board degradation due to electrostatic discharge.
- Easy release from silicone adhesive

Benefits

- Helps promote high productivity.
- Protects surfaces, helping reduce replacement.
- Helps promote high productivity.
- Helps reduce costly board waste due to component failure.
- Capability to produce die cut parts

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-227-5085. Address correspondence to: 3M Industrial Tape and Specialties Division, 3M Center, Building 220-8E-04, St. Paul, MN 55133-3220. Our fax number is 612-733-9175. In Canada, phone: 1-519-451-2500. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-0400.

Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M ITSD product in a particular application. The materials to be bonded with the 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 ITSD product. Given the variety of factors that can affect the use and performance of a 3M ITSD product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M ITSD product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, 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, Bldg. 220-8E-04
P.O. Box 33220
St. Paul, MN 55133-3220



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

Printed in U.S.A.
©3M 1995 70-0705-2035-1