3M™ Low Static Polyimide Film Tape (Linered) 5433

Product Description

3M™ Low Static Polyimide Film Tape 5433 is a linered version of 3M™ Low Static Polyimide Film Tape 5419.
A translucent, polyimide film-backed silicone adhesive tape with unique and extremely low electrostatic discharge properties.

Product Construction

Backing	Adhesive	Color	Standard Roll Length
Polyimide	Silicone	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:	20 oz./in. width (22 N/100 mm)	D-3330
Tensile Strength at Break:	33 lbs./in. width (578 N/100 mm)	D-3759
Elongation at Break:	60%	D-3759
Backing Thickness:	1.0 mil (0.03 mm)	D-3652
Total Tape Thickness:	2.7 mil (0.07 mm)	D-3652
Temperature Use Range:	-100° to 500°F (-73° to 260°C)	
Dielectric Strength:	7000 volts	D-149
Insulation Resistance:	$>1*10^6$ ohms	
Static Charge:	(measured at 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	
Outgassing:	%TLM = 0.58; %CVCM = 0.24	E-595
Flame Retardancy:	Pass	per UL-510 product category: OANZ2 File E230409

3M™ Low Static Polyimide Film Tape (Linered) 5433

Features

- 3M™ Low Static Polyimide Film Tape 5433 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. 3M tape 5433 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 providesan excellent release surface at elevated temperatures.
- RoHS compliant.

Application Ideas

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

Key Attributes

Features	Advantages	Benefits
Polyimide film	Dimensionally stable at high temperatures Flame retardant and chemical resistant	Helps promote high productivity Protects surfaces, helping reduce replacement
Silicone adhesive	High temperature performance reduces adhesive transfer	Helps promote high productivity
Low static	Virtually eliminates circuit board degradation due to electrostatic discharge	Helps reduce costly board waste due to component failure
Unique release liner	Easy release from silicone adhesive	Capability to product die cut parts

Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 50% R.H. in the original carton.

Shelf Life

To obtain best performance, use this product within 12 months from date of manufacture.

3M™ Low Static Polyimide Film Tape (Linered) 5433

Certification/Recognition

MSDS: 3M has not prepared a MSDS for this product which is not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

TSCA: This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements.

RoHS: This product complies with the requirements of EU Directive 2002/95/EC and 2005/618/EC.

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, 3M Center, Building 225-3S-06, St. Paul, MN 55144-1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M

Electronics Markets Materials Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
1-800-251-8634 phone
651-778-4244 fax
www.3M.com/electronics

70-0703-7733-1

3M