3M™ Low Static Polyimide Film Tape 5419

Product Description

3M™ Low Static Polyimide Film Tape 5419 is 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	Gold	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 roll: <150 volts Removal from PWB: <50 volts	
Outgassing:	%TLM = 0.58; %CVCM = 0.24	E-595
Flame Retardancy:	Pass	per UL-510 product category: OANZ2 File E230409

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Features

- 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™ Low Static Polyimide Film Tape 5419 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.
- Gold tab protection during wave solder of printed circuit boards.
- 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.

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 3 years from date of manufacture.

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 Complaint/REACH Compliant: This product complies with the European Union's "Restriction of Hazardous Substances" (RoHs) initiative and with European REACH regulations 2002/95/EC and 2005/618/EC.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-866-599-4227. 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.

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