



Low Static Polyimide Film Tape

5419

Technical Data

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 mils (0.07 mm)	D-3652
Temperature Use Range:	-100° to 500°F (-73° to 260°C)	
Dielectric Strength:	7000 volts	
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	

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 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.

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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 12 months from date of manufacture.

Product Use

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.

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