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Technical Data | October 2026

3M™ Low-Static Polyimide Film Tape 7419

Product Description

3M™ Low-Static Polyimide Film Tape 7419 features an industry-leading polyimide film backing with an acrylic adhesive that is used for PCB solder masking and other high-temperature applications up to 260°C (500°F). This product is amber in color and has a thickness of 1.8 mil (46 microns).

Key Features

- Specially formulated acrylic adhesive is resistant to typical solder mask temperatures for short periods of time
- Stays firmly in place during processing and removes cleanly from typical electronic substrates even after 10 minutes at 260°C (500°F)
- Specially formulated acrylic adhesive formulation does not rely on silicone, which lessens the potential for silicone contamination which can interfere with subsequent bonding or conformal coating operations
- The high-temperature acrylic adhesive also has excellent chemical resistance and should be considered for demanding chemical masking applications
- Product is wound on a polyethylene tape core

Product Construction

Polyimide Film Backing: 1.0 mil
Acrylic Adhesive: 0.8 mil

Material Description

Note: The following preliminary technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Low-Static Polyimide Film Tape 7419	
Property	**Value**
Backing	Industry-Leading Polyimide Film
Adhesive	Acrylic
Color	Amber
Standard Roll Length	33 meters (36 yards)

Applications

- Masking or protecting residue-sensitive areas on printed circuit boards (PCBs) during high-temperature operations, such as wave soldering and solder reflow
- Release surface in fabrication of parts cured at elevated temperatures

3M™ Low-Static Polyimide Film Tape 7419
Typical Physical Properties and Performance Characteristics

Note: The following preliminary technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the product's Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ Low-Static Polyimide Film Tape 7419		
Property	**Test Method***	**Value**
Adhesion to Steel Initial 72 hours at 25°C 10 minutes at 260°C	ASTM D3330	4 oz/in width (4.5 N/100 mm) 5 oz/in width (5.6 N/100 mm) 17 oz/in width (19 N/10 mm)
Adhesion to Copper Initial 72 hours at 25°C 10 minutes at 260°C	ASTM D3330	4 oz/in width (4.5 N/100 mm) 5 oz/in width (5.6 N/100 mm) 10 oz/in width (11 N/10 mm)
Static Discharge**	3M Internal Test Method	< 100 volts
Dielectric Strength	ASTM D149	6,000 Volts
Surface Resistivity	ESD Method S-11	5 X 10^6 ohms/sq
Backing Thickness	ASTM D3652	1.0 mil (0.03 mm)
Total Tape Thickness	ASTM D3652	1.8 mil (0.046 mm)
Temperature Use Range***	3M Internal Test Method	10 minutes at 260°C (500°F)
Outgassing	ASTM E595	%TML = 0.71, %CVCM = <0.01

*Methods listed as ASTM are tested in accordance with the ASTM method noted
**Static discharge during removal from roll
***Temperature use range is defined as the maximum time at the stated temperature after which the tape may be removed cleanly, without staining, from a copper substrate

Application Techniques

- Substrates should be smooth, clean, dry, and oil-free to help ensure good wet-out and adequate adhesion.
- Tape may not bond or conform to low surface energy, rough, or sharply curved surfaces.

Storage and Shelf Life

The shelf life of 3M™ Low-Static Polyimide Film Tape 7419 is 18 months from the date of manufacture when stored in original packaging materials and stored at 21°C (70°F) and 50% relative humidity.

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is manufactured and deemed commercially available from 3M. The COA contains the 3M specifications, test methods, and test results for the product's performance attributes that the product will be supplied against. Contact your local 3M representative for this product's COA.

3M™ Low-Static Polyimide Film Tape 7419

Regulatory: For regulatory information about this product, contact your 3M representative.

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