

3M™ Lined Low-Static Polyimide Film Tape 7419L

Product Description

3M™ Lined Low-Static Non-Silicone Polyimide Film Tape 7419L with DuPont™ Kapton® polyimide film and acrylic adhesive is amber-colored and used for printed circuit board solder masking and other high-temperature applications. This is a lined version of 3M™ Low-Static Non-Silicone Polyimide Film Tape 7419.

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 @ 260°C (500°F).
- Non-silicone adhesive formulation 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.

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DuPont™ Kapton® Polyimide Film backing – 1.0 mils (0.025 mm)	1.8 mil without liner (0.046 mm)
Acrylic adhesive layer – 0.8 mils (0.020 mm)	
Polyester liner	

Product Construction/Material Description

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

3M™ Lined Low-Static Polyimide Film Tape 7419L	
Property	Value
Adhesive	Acrylic
Backing	DuPont™ Kapton® Polyimide Film
Color	Amber
Liner	Polyester
Product form	Roll
Standard roll length	36 yards (33 meters)

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Applications

- Masking or protecting residue sensitive areas on printed circuit boards during high-temperature operations such as wave soldering and solder reflow.

Application Techniques

Best results are attained when applied to a clean, dry and non-dusty surface above 0°C. To improve adhesion, ensure that firm and even pressure is applied.

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. Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ Lined Low-Static Polyimide Film Tape 7419L		
Property	Test method ^a	Value
Adhesion to stainless Initial 72 hours @ room temp 10 minutes @ 260° C	ASTM D3330, Part A	4 oz/in (4.52 N/100 mm) 5 oz/in (5.65 N/100 mm) 17 oz/in (19 N/100 mm)
Adhesion to copper Initial 72 hours @ room temp 10 minutes @ 260° C	ASTM D3330, Part A	4 oz/in (4.52 N/100 mm) 5 oz/in (5.65 N/100 mm) 10 oz/in (11 N/100 mm)
Backing thickness	ASTM D3652	1.0 mil (0.025 mm)
Total tape thickness	ASTM D3652	1.8 mil (0.046 mm)
Static discharge Removal from roll	3M Test Method	< 100 volts
Dielectric strength	3M Test Method	6000 volts
Surface resistivity	ESD Method S-11	5 x 10 ⁶ ohms/sq
Temperature use range ^b	3M Test Method	10 min at 260°C

^aMethods listed as ASTM are tested in accordance with the ASTM method noted

^bTemperature use range is defined as the maximum time at the stated temperature after which the 3M tape 7419L may be removed cleanly, without staining, from a copper substrate.

Storage and Shelf Life

To obtain best performance, use this product within 18 months from date of delivery and store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original carton.

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is commercially available from 3M. The commercially available product will have a COA specification established. The COA contains the 3M specifications and test methods for the products performance limits that the product will be supplied against. The 3M product is supplied to 3M COA test specifications and the COA test methods. Contact your local 3M representative for this product's COA. This technical data sheet may contain preliminary data and may not match the COA specification limits and/or test methods that may be used for COA purposes.

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Safety Data Sheet: Consult Safety Data Sheet before use.

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

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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