

3M™ Polyimide Film Tape 5413

Product Description

3M™ Polyimide Film Tape 5413 consists of a Kapton® polyimide film and silicone adhesive designed for high temperature applications.

Product Construction

Backing	Adhesive	Liner	Color	Standard Roll Length
Kapton® Polyimide Film	Silicone	None	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:	22 oz./in. width (24 N/100 mm)	D-3330
Tensile Strength at Break:	33 lbs./in. width (578 N/100 mm)	D-3759
Elongation at Break:	62%	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
Outgassing:	%TLM = 1.50; %CVCM = 0.50	E-595
Flame Retardancy:	Pass	per UL-510 product category: OANZ2 File E230409

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Features

- At room temperature, the properties of Kapton® and polyimide polyester films are similar, however, as the temperature increases or decreases, the properties of the Kapton® film are less affected than polyester.
- Kapton® film does not soften at elevated temperatures, thus the film provides an excellent release surface at elevated temperatures.
- RoHS compliant.

Application Ideas

- Mask for protection of gold fingers of printed circuit boards during wave solder or solder dip process.
- Release surface in fabrication of parts cured at elevated temperatures.

Key Attributes

Features	Advantages	Benefits
Thin Kapton® polyimide film	Dimensionally stable at high temperatures Flame retardant, chemical and radiation resistant	No rework – high productivity Protects surfaces, helping reduce replacement costs
Silicone adhesive	High temperature performance reduces adhesive transfer	No cleaning required – helps increase productivity
High adhesive to film bond	Reduces adhesive transfer	No cleaning required – helps increase productivity

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.

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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.

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