



5413 Plastic Film Tape ("Kapton")

Product Data Sheet

Updated : March 1996
Supersedes : October 1993

Product Description

Amber coloured KAPTON film is very distinctive in its appearance. The film has excellent dimensional stability at elevated temperatures and is very strong. The addition of a specially formulated silicone adhesive provides a tape

with excellent chemical and solvent resistance and especially good for specialised masking applications in high temperature environments.

Physical Properties

Not for specification purposes

Adhesive Type	Silicone	
Backing	"Kapton" Polyimide film.	
Thickness (ASTM D-3652)	70 µm	
Film Thickness	30 µm	
Film Shrinkage	At 250°C = 0.03%.	
Tape Colour	Amber	
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity	

Performance Characteristics

Not for specification purposes

Adhesion to Stainless Steel ASTM D-3330	2.2 N/10mm	
Tensile Strength ASTM D-3759	57.8 N/10mm	
Elongation at Break ASTM D-3759	70.0 %	
Temperature Range Maximum Minimum	260 °C -75 °C	

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Additional Product Information	At room temperature, the properties of "Kapton" and polyester film are similar. However, as the temperature is increased or decreased, the properties	of the "Kapton" film are less affected as compared to polyester. "Kapton" film does not soften at elevated	temperatures; thus the film provides an excellent release surface at <u>elevated temperatures</u> .
Application Techniques	Best results are attained when applied to a clean, dry and non dusty surface above 5°C.	To improve adhesion ensure firm and even application pressure is applied.	
Applications	Mask for printed circuit boards during wave solder or solder dip process.	Used as release surface in fabrication of parts cured at elevated temperatures.	

FEATURES

Thin "Kapton" film.

Silicone adhesive.

ADVANTAGES

Dimensionally stable at high temperatures.

Flame retardant.
Chemical and radiation resistant.

High temperature performance.
Reduces adhesive transfer.

BENEFITS

Higher productivity.

Protects surfaces, reducing replacement costs.

Higher productivity.

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"KAPTON" is a trademark of DuPont.

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.



Specialty Tapes & Adhesives

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