

# 5413 Plastic Film Tape ("Kapton")

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## Product Data Sheet

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Updated : March 1996  
Supersedes : October 1993

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### 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.

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### Physical Properties

Not for specification purposes

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

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### Performance Characteristics

Not for specification purposes

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

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<b>Additional Product Information</b>	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> .
<b>Application Techniques</b>	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.	
<b>Applications</b>	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.