

Product Description

PI-055 is an amber polyimide (PI) film tape coated with a high-performance silicone pressure-sensitive adhesive. It combines excellent thermal stability, high dielectric strength and chemical resistance, and removes cleanly without adhesive residue even after exposure to elevated temperatures.

Key Features

- Continuous service temperature up to 260 °C, short-term up to 300 °C
- High dielectric strength – ideal for electrical insulation
- Clean removal, no residue after heat exposure
- Resistant to solvents, acids, oils and UV radiation
- Thin 0.055 mm profile, conforms to irregular surfaces
- RoHS / REACH compliant, halogen-free



Fig. 1 – PI-055 polyimide tape rolls

Technical Properties

Property	Typical value	Test method
Backing material	Polyimide film	—
Adhesive type	Silicone, pressure-sensitive	—
Color	Amber / golden brown	Visual
Total thickness	0.055 mm	ASTM D3652
Tensile strength	≥ 42 N/25 mm	ASTM D3759
Elongation at break	50 %	ASTM D3759
Peel adhesion (180°, to steel)	≥ 26 N/25 mm	ASTM D3330
Initial tack (rolling ball)	No. 24 ball	JIS Z0237
Temperature resistance	260 °C continuous / 300 °C short-term	Internal
Dielectric breakdown voltage	≥ 5 kV	ASTM D1000
Flame retardancy	Self-extinguishing	UL 510

Available Dimensions

Part number	Width	Width (in)	Core ID	Thickness
PI-055-05	5 mm	0.20"	76 mm (3")	0.055 mm
PI-055-06	6 mm	0.24"	76 mm (3")	0.055 mm
PI-055-08	8 mm	0.31"	76 mm (3")	0.055 mm
PI-055-10	10 mm	0.39"	76 mm (3")	0.055 mm
PI-055-12	12 mm	0.47"	76 mm (3")	0.055 mm
PI-055-15	15 mm	0.59"	76 mm (3")	0.055 mm
PI-055-20	20 mm	0.79"	76 mm (3")	0.055 mm
PI-055-25	25 mm	0.98"	76 mm (3")	0.055 mm
PI-055-30	30 mm	1.18"	76 mm (3")	0.055 mm
PI-055-40	40 mm	1.57"	76 mm (3")	0.055 mm
PI-055-50	50 mm	1.97"	76 mm (3")	0.055 mm

Width tolerance ±0.5 mm, length tolerance ±2 %. Custom widths, lengths and die-cut shapes are available on request.

Typical Applications

- PCB masking during wave soldering, reflow and gold-finger plating
- Insulation of transformers, motors, coils and capacitors
- Lithium battery tab insulation and cell wrapping
- Powder coating and high-temperature masking
- 3D printer heated-bed surface and thermal sensor fixing
- Cable harness wrapping in high-heat environments

Storage & Handling

Item	Details
Shelf life	12 months from date of manufacture
Storage conditions	15–30 °C, 40–70 % RH, away from direct sunlight
Packaging	Individually shrink-wrapped rolls in cartons
Application temperature	10–40 °C, on clean, dry, oil-free surfaces