

K271

Thermally Conductive Silicone Coated KAPTON® Tape

Saint-Gobain Performance Plastics **ThermaCool® K271** is manufactured with a 1.0 mil thick thermally conductive KAPTON® film. The film is coated on one side with 1.5 mils of thermally conductive acrylic pressure sensitive adhesive, and on the other side with 2.0 mils of thermally conductive silicone rubber. K271 is provided in roll form with a release liner for ease of application. This product was designed for use in thermally conductive gaskets for high performance electronics where low thermal resistance and high dielectric strength are required.

Physical Properties

Property	Test Method	K271
Color	Visual	Green/White
Thickness (mils)	ASTM D1000	4.5
Thermal Conductivity (W/mK)	ASTM E1530	0.60
Thermal Impedance @ 10psi (°C in ² /W)	ASTM E1530 @ 10 psi	0.30
Dielectric Strength (volts)	ASTM D149	7,000
Adhesion to Steel (oz./in.)	ASTM D1000	30.0
Operating Temperature Range (°F)		-20 to 300

All properties are typical values and should not be used for writing specifications.

Recommended Uses

- Thermally conductive dielectric barrier
- Fill voids where thermal transfer and electrical isolation is very important

Availability

Factory stock is available as slit rolls or roll goods 16" wide x 36 yards long.

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Features/Benefits

- KAPTON polyimide film and silicone rubber provide excellent electrical isolation and high dielectric performance
- Silicone layer provides a compliant, non-stick surface to provide excellent heat transfer and easy disassembly
- Thermally conductive adhesive provides excellent thermal transfer at low application pressures
- Adverse effects of surface roughness are minimized with the highly conformable pressure-sensitive adhesive and silicone layers
- KAPTON film provides excellent cut through resistance
- Can be die cut to size from convenient roll format
- Thermally conductive acrylic adhesive can be thermaset for increased adhesion strength

Applications

- Thermally conductive gaskets for high performance electronics

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