

PR27

High Insulating Thermally Conductive Film

LiPOLY PR27 is a very thin, high breakdown voltage insulator with a thickness of 0.15mm. It uses a polyimide film as a reinforcement layer, which increases the mechanical strength. It is suitable for high power transistors, electrical equipment, and will be the best choice for auto-distribution systems.



Features-

- Thermal conductivity: 1.8 W/m*K
- Good insulator
- Low thermal impedance
- Reworkable
- High performance
- UL 94V-0

Typical Applications-

- Power supplies
- Motor controls
- Power semiconductors

Specifications-

- Sheet form
- Die-cut parts

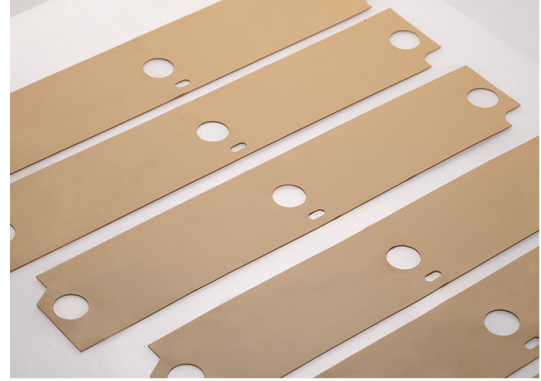
Typical Properties-

PROPERTY	PR27	TEST METHOD	UNIT
Color	Gray	Visual	-
Reinforced layer	Polyimide	-	
Thickness	0.15	ASTM D374	mm
Density	1.5	ASTM D792	g/cm ³
Hardness	80	ASTM D2240	Shore A
Application temperature	-45~180	-	°C
Tensile Strength	5000	ASTM D412	psi
Elongation	30	ASTM D412	%
ELECTRICAL			
Dielectric breakdown	>12	ASTM D149	KV
Surface resistivity	>10 ¹³	ASTM D257	Ohm
Volume resistivity	>10 ¹²	ASTM D257	Ohm-m
THERMAL			
Thermal Conductivity	1.8	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.52	ASTM D5470	°C-in ² /W
Thermal impedance@30 psi	0.42	ASTM D5470	°C-in ² /W
Thermal impedance@50 psi	0.31	ASTM D5470	°C-in ² /W
FLAME RATING			
UL Flammability class	V-0	UL94	-

SHI 500/2000/3000

Insulating Thermally Conductive Pad

LiPOLY SH is a range of thermally conductive insulator pads that provide low thermal impedance and excellent dielectric breakdown properties for the most demanding of thermal management applications. A fiberglass layer provides excellent cut-through resistance which is ideal for applications using high torque. The SH range of products can be provided die-cut to your specific needs.



Features-

- Thermal conductivity: 1.5/2.0/3.0 W/m*K
- Excellent insulator
- Reworkable
- Fiberglass reinforced
- UL 94V-0 qualified

Typical Applications-

- Power supplies
- Motor controls
- Automotive electronics

Specifications-

- Sheet form
- Die-cut parts

Typical Properties-

PROPERTY	SH1500	SH2000	SH3000	TEST METHOD	UNIT
Color	Yellow	Green	Pink	Visual	-
Reinforced layer	Fiberglass	Fiberglass	Fiberglass	-	-
Thickness	0.23	0.30	0.35	ASTM D374	mm
Density	2.3	2.6	2.8	ASTM D792	g/cm ³
Hardness	80	80	80	ASTM D2240	Shore A
Application temperature	-60~180	-60~180	-60~180	-	°C
Tensile Strength.	>2000	>2000	>1200	ASTM D412	psi
ELECTRICAL					
Dielectric breakdown	>4	>5	>5.5	ASTM D149	KV
Surface resistivity	>10 ¹²	>10 ¹²	>10 ¹²	ASTM D257	Ohm
Volume resistivity	>10 ¹²	>10 ¹²	>10 ¹⁰	ASTM D257	Ohm-m
THERMAL					
Thermal Conductivity	1.5	2.0	3.0	ASTM D5470	W/m*K
Thermal impedance@20 psi	0.63	0.53	0.57	ASTM D5470	°C-In ² /W
Thermal impedance@60 psi	0.45	0.38	0.39	ASTM D5470	°C-In ² /W
Thermal impedance@100 psi	0.41	0.36	0.36	ASTM D5470	°C-In ² /W
FLAME RATING					
UL Flammability class	V-0	V-0	V-0	UL94	-

※ These data are provided for reference only. Engineers are reminded to test the material in varied application.