

ST6000

UL Flammability Thermal Conductive Tape

LiPOLY ST6000 is a thermally conductive tape which can be used to mount heat sinks and other devices to hot components. With a thermal conductivity of 1.8 W/m*K and UL 94V-0 approval this product can be used in the most critical of thermal applications.

Features-

- •Thermal conductivity:1.8W/m*K
- •UL 94V-0 qualified
- ·High temperature stability
- Easy to assemble

Typical Applications-

- Power supplies
- Motor controls
- Power semiconductors

Specifications-

- Sheet form
- Die-cut parts

Typical Properties-

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PROPERTY	ST6000	ST6000F		TEST METHOD	UNIT
Color	White	White		Visual	-
Reinforced layer	None	Fiberglass		-	-
Thickness	0.2	0.15	0.25	ASTM D374	mm
Density	2.3	1.6	1.6	ASTM D792	g/cm³
Application temperature	-60~170	-60~170	-60~170	-	°C
Short time Temp. @ 30 sec	288	288	288	-	°C
ADHESION					
Lap shear strength	35	74	76	ASTM D1002	N/cm²
Die shear strength @ 25°C	50	113	126	-	N/cm ²
Die shear strength @ 80 °C	50	80	85	-	N/cm²
Holding power 1kg @ 25 °C	>10000	>10000	>10000	PSTC-7	min
Holding power 1 kg @ 80 °C	>10000	>10000	>10000	PSTC-7	min
90 $^{\circ}$ Peeling Strength @ 25 $^{\circ}\text{C}$, 72 Hrs	>8	>11	>12	ASTM D3330	N/inch
90 · Peeling Strength @ Thermal Aging	>7	>7	>10	80°C 1000 hrs	N/inch
90 · Peeling Strength @ HAST	>10	>7	>13	85°C / 85%RH 1000 hrs	N/inch
90 $^{\circ}$ Peeling Strength @ Thermal Cycling	>9.5	>7	>10	-40°C~120°C 500 cycles	N/inch
ELECTRICAL					
Dielectric strength (DCV)	4.5	4	5	ASTM D149	KV
Dielectric strength (ACV)	3.5	3	4	ASTM D149	KV
Surface resistivity	>10 ⁹	>10 ¹¹	>10 ¹¹	ASTM D257	Ohm
Volume resistivity	>10 ⁹	>10 ¹²	>1012	ASTM D257	Ohm-m
THERMAL					
Thermal Conductivity	1.8	1.2	1.2	ASTM D5470	W/m*K
Thermal impedance@ 5 psi	0.81	0.78	1.24	ASTM D5470	°C-in²/W
Thermal impedance@ 10 psi	0.72	0.71	1.16	ASTM D5470	°C-in²/W
Thermal impedance@ 15 psi	0.65	0.64	1.14	ASTM D5470	°C-in²/V
FLAME RATING					
UL Flammability class				V-0 UL94	-

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