

# 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-

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/cm <sup>3</sup>
Application temperature	-60~170	-60~170	-60~170	-	°C
Short time Temp. @ 30 sec	288	288	288	-	°C
<b>ADHESION</b>					
Lap shear strength	35	74	76	ASTM D1002	N/cm <sup>2</sup>
Die shear strength @ 25 °C	50	113	126	-	N/cm <sup>2</sup>
Die shear strength @ 80 °C	50	80	85	-	N/cm <sup>2</sup>
Holding power 1kg @ 25 °C	>10000	>10000	>10000	PSTC-7	min
Holding power 1 kg @ 80 °C	>10000	>10000	>10000	PSTC-7	min
90 ° Peeling Strength @ 25 °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 ° Peeling Strength @ Thermal Cycling	>9.5	>7	>10	-40 °C~120 °C 500 cycles	N/inch
<b>ELECTRICAL</b>					
Dielectric strength (DCV)	4.5	4	5	ASTM D149	KV
Dielectric strength (ACV)	3.5	3	4	ASTM D149	KV
Surface resistivity	>10 <sup>9</sup>	>10 <sup>11</sup>	>10 <sup>11</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>9</sup>	>10 <sup>12</sup>	>10 <sup>12</sup>	ASTM D257	Ohm-m
<b>THERMAL</b>					
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-in <sup>2</sup> /W
Thermal impedance@ 10 psi	0.72	0.71	1.16	ASTM D5470	°C-in <sup>2</sup> /W
Thermal impedance@ 15 psi	0.65	0.64	1.14	ASTM D5470	°C-in <sup>2</sup> /W
<b>FLAME RATING</b>					
UL Flammability class				V-0 UL94	-