AT920-s

LiPOLY
SHIU LI TECHNOLOGY CO.,LTD

High Thermal Conductive Tape

LiPOLY AT920-s is an unsupported thermally conductive tape with a thermal conductivity of 3.5 W/m*K. The thickness comes in 0.25 and 0.50 mm, and the AT920-s can withstand 4~7K voltage. Using highly thermal conductive particles makes the tape extremely reliable and easy to use. The stickiness and strength will increase when temperature and pressure rise.

FEATURES

/ Thermal conductivity:3.5 W/m*K
/ Excellent adhesive properties
/ Designed for manufacture
/ Excellent long term reliability

TYPICAL APPLICATION

/ Automotive electronics
/ Telecommunications
/ LED light bar & LED lamp
/ Between any heat-generating component and heat sink
/ 5G base station & infrastructure
/ EV electric vehicle

SPECIFICATIONS

/ Sheet form
/ Die-cut parts

TYPICAL PROPERTIES

PROPERTY	AT920-s		TEST METHOD	UNIT
Color	White		Visual	-
Reinforced layer	None		-	-
Thickness	0.25	0.50	ASTM D374	mm
Density	2.6	2.6	ASTM D792	g/cm³
Application temperature	-60~120	-60~120	-	°C
Short time temp. @30sec	200	200	-	°C
ROHS	Compliant	Compliant	-	-
ADHESION				
Initial tack	12	8	PSTC-6	cm
Lap shear strength	30	35	ASTM D1002	N/cm²
Die shear strength@25°C	80	85	-	N/cm²
Die shear strength@80°C	40	40	-	N/cm²
Holding power 1kg @25°C	>10000	>10000	PSTC-7	min
Holding power 1kg @80°C	>10000	>10000	PSTC-7	min
90° Peeling strength @ 25°C, 72 hrs	>7	>9	ASTM D3330	N/inch
90° Peeling strength @ Thermal aging	>12	>13	80°C 1000 hrs	N/inch
90° Peeling strength @ HAST	>20	>22	85°C/85%RH 1000 hrs	N/inch
90° Peeling strength @ Thermal cycling	>11	>13	-40°C~120°C 500 cycles	N/inch
ELECTRICAL				
Dielectric breakdown	4	7	ASTM D149	KV
Surface resistivity	$>10^{11}$	$>10^{11}$	ASTM D257	Ohm
Volume resistivity	$>10^{12}$	$>10^{12}$	ASTM D257	Ohm-m
THERMAL				
Thermal conductivity	3.5	3.5	ASTM D5470	W/m*K
Thermal impedance@5psi	0.33	0.54	ASTM D5470	°C-in²/ W
Thermal impedance@10psi	0.32	0.53	ASTM D5470	°C-in²/ W
Thermal impedance@15psi	0.31	0.50	ASTM D5470	°C-in²/ W