LiPOLY®
SHIU LI TECHNOLOGY CO.,LTD

AS02-s

Ultra Thin Thermal Film

LiPOLY AS02-s is a material with double sided inherent tack, low thermal resistance and high thermal conductivity. It has excellent compressive strength characteristics and good electrical isolation function for high-power electronic components, making it the best choice for thin design installation. Customized Die-Cut and molding are available.

FEATURES

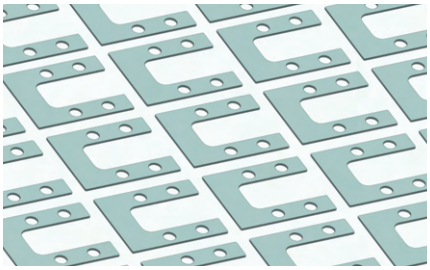
/ Great thermal conductivity
/ Low thermal impedance
/ High compressibility
/ Excellent elasticity
/ Suitable for high performance products
/ Die-cut part

TYPICAL APPLICATION

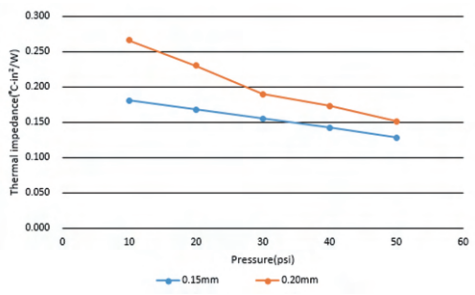
/ Electronic Components - Notebook computers, Heat pipe assemblies, Memory modules, TV hardware, Automotive electronics, Mobile devices, HPC , servers 5G base station & infrastructure, EV electric vehicle

SPECIFICATIONS

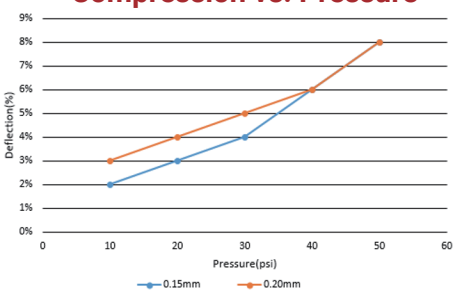
/ Roll form / Sheet form
/ Die-cut parts



Thermal Resistance vs. Pressure



Compression vs. Pressure



TYPICAL PROPERTIES

PROPERTY	UNIT	AS02-s		TEST METHOD
Thermal conductivity	W/m*K	4.5	4.5	ASTM D5470 Modified
Thickness	mm	0.15	0.20	ASTM D374
	inch	0.0059	0.0079	ASTM D374
Color	-	Green	Green	Visual
Flame rating	-	V-0	V-0	UL 94
Dielectric breakdown	KV	4	6	ASTM D149
Weight loss	%	<1	<1	By LiPOLY
Density	g/cm³	3.0	3.0	ASTM D792
Application temperature	°C	-50~180	-50~180	-
Volume resistivity	Ohm -m	$1x10^{12}$	$1x10^{12}$	ASTM D257
Elongation	%	10	10	ASTM D412
Standard Format	-	Sheet	Sheet	-
Hardness	Shore A	25	25	ASTM D2240
ROHS & REACH	-	Compliant	Compliant	-
Surface tack 2-side/1-side	-	2	2	-
Surface resistivity	Ohm	$1x10^{12}$	$1x10^{12}$	ASTM D257
COMPRESSION				
Deflection@10 psi	%	2	3	ASTM D5470
Deflection@20 psi	%	3	4	ASTM D5470
Deflection@30 psi	%	4	5	ASTM D5470
Deflection@40 psi	%	6	6	ASTM D5470
Deflection@50 psi	%	8	8	ASTM D5470
THERMAL				
Thermal impedance@10 psi	°C-in²/ W	0.181	0.266	ASTM D5470
Thermal impedance@20 psi	°C-in²/ W	0.168	0.230	ASTM D5470
Thermal impedance@30 psi	°C-in²/ W	0.155	0.190	ASTM D5470
Thermal impedance@40 psi	°C-in²/ W	0.142	0.173	ASTM D5470
Thermal impedance@50 psi	°C-in²/ W	0.128	0.151	ASTM D5470