

Thermal Pad 21-1500

Version TDS.21-1500.V.B.1

Description

Through orientation technology, this soft and conformable thermal pad is designed to provide high level of thermal performance with minimum pressure on electronic components. 21-1500 is both side non-tacky pad, we can also provide single-side tacky 21-1500A pad.



Benefits

- High thermal conductivity: 15W/m-K in thickness direction
- Soft: Outstanding compressibility
- Carbon fiber aligning
- RoHS Compliant

Applications

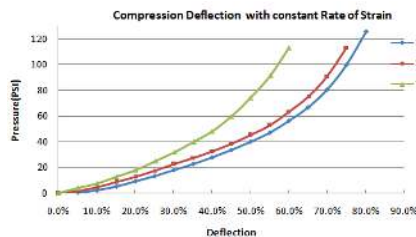
- Base station, IGBT module
- Optical transceiver
- Mass Storage Devices
- Power Electronics

Typical Properties

Properties		21-1500			Test Method	
Thermal	Thermal Conductivity (W/m-K)*	21-1500(non-tacky)	15			ASTM D5470
		21-1500A(single-side tacky)	13			
	Thermal Resistance ($^{\circ}\text{C}\cdot\text{cm}^2/\text{W}$)	Thickness(mm)	1.0	2.0	3.0	ASTM D5470
		Thermal resistance @10Psi pressure($^{\circ}\text{C}\cdot\text{cm}^2/\text{W}$)	0.84	1.39	1.87	
Continuous Use Temp ($^{\circ}\text{C}$)		-55-150 $^{\circ}\text{C}$				
Color		Dark gray			Visual	
Physical	Hardness(Shore 00)	50			ASTM D2240	
	Density (g/cc)	2.62			ASTM D792	
	Thickness Range (mm)	1.0-5.0			ASTM D374	
Electrical	Volume Resistivity (ohm-cm)	>10 ¹⁵			ASTM D257	
	Dielectric Breakdown Voltage (KVAC/mm)	<0.1			ASTM D149	
RoHS Compliant		YES				
Regulatory	Flame Rating	V0			UL 94	
	Shelf Life (months)	12				

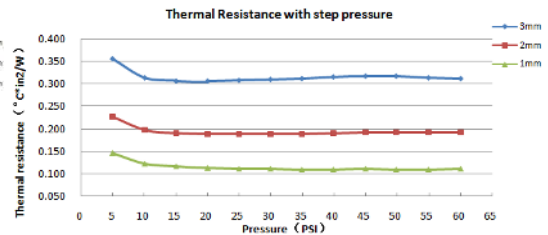
* The value of thermal conductivity is measured except contact thermal resistance.

Compression Deflection



21-1500 Gap Pad 1.0/2.0/3.0mm thick;
1 inch² test sample;
Rate of strain =1mm/min

Thermal Resistance VS Compression



21-1500 Gap Pad 1.0/2.0/3.0mm thick;
1 inch² test sample;
Pressure step = 5psi

Recommended Compression: 10--30%, which can keep the thermal conductive structure.
Standard Size: 2" X 2" (50mmX50mm)
Storage Requirement: Room Temperature(20 to 25 $^{\circ}\text{C}$), R.H. 50%

Disclaimers

- The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the issuing date of this TDS. When using our products, no matter what type of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this TDS are subject to change without prior notice.
- Do not use the products beyond the specifications described in this TDS. This TDS explains the typical performance of the products as individual component. Before use, check and evaluate their operations when installed in your products.
- Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.

