

TCGP-3.6 S Thermal Conductive Gap Pad

Features & Benefits

- Conformable
- Electrically Isolating
- Low Interfacial Resistance
- Superior Thermal Performance
- Superior Peel adhesion

Applications

- Automotive Electronics (HEV, NEV, Batteries)
- PCBA to heatsink
- Discrete components to heat spreader
- LED

Introduction

TCLAD TCGP series is a thermally conductive gap filling pad type material that is an ideal thermal interface material specifically designed for heatsink attachment to a heat source like PCB, MCPCB, or component package. The purpose of the material is to fill a gap or space and minimize thermal resistance between the heat source and the heat sink or heat spreader. TCGP has excellent thermal conductivity cushioning and gap-filling properties. Depending on application, the material is available in different hardness's.

Typical properties of gap filling pad type materials have the following characteristics: thermal conductivity, hardness, volume resistivity, etc. It is typically offered in sheets or custom part size and shapes.

How to use: Remove the liner on one side and place the pad onto the first surface, PCB, component or heatsink. Remove the second liner and apply the mating surface and clamp using .

Useable life and storage: TCGP products perform best if stored in a cool and dry / non-humid environment, especially where it is not exposed to any sunlight. Containers that have been stored longer than two months should be remixed with a clean mixer and vacuum to prevent air entrapment. Cartridge containers should be flipped upside down every two weeks to prevent the particle fillers from settling to the bottom. The shelf life can be up to 6 months when properly stored.

Package Information: Typical package can be individual, or bulk packed or can be in trays or tape and reel.

Precautions: Please carefully review the technical data sheet of the material before use of the product in terms of the material characteristics. In addition to the TDS the container labels for safety must be reviewed, which contains any physical health hazard information.



Item	Condition	Unit	Value	Method
General				
Color	Visual	-	Light Blue	-
Continuous Use Temp	-	°C	-20 ~ 250	-
Thickness	Mitutoyo	Mm	0.5 ~ 10	ASTM D792
Density	25°C (Gravimeter)	g/cc	2.7	ASTM D792
Hardness	Shore	00	40	ASTM D2240
Elongation	-	%	90	ASTM D412
Tensile strength	-	MPa	1.2	ASTM D642
Internal tearing strength	-	kN/m	0.1	ASTM D624
Electrical				
Flame Rating	Vertical Burn Test	-	V-0	UL94
Withstand Voltage	3KVAC	mA	<0.3	ASTM D149
Breakdown Voltage	DC	KV/mm	14	ASTM D149
Volume Resistivity	-	Ω cm	>1x10 ¹²	ASTM D257
Dielectric Constant	1000	Hz	6.0	ASTM D150
Thermal				
Thermal Conductivity	-	W/m-K	3.6	ASTM D7984
Durability				
Heating Stability (Thermal conductivity, Breakdown voltage)	150°C 500hr	%	< 10	
Cooling stability (Thermal conductivity, Breakdown voltage)	-40°C 500hr	%	< 10	
Temperature Humidity (Thermal conductivity, Breakdown voltage)	500hr (85°C / 85% HUM)	%	< 10	
Thermal Shock Test (Thermal conductivity, Breakdown voltage)	500 cycle (-40°C~125°C)	%	< 10	
RoHS	-	-	N/D	
Heat loss	500hr (100°C)	%	< 0.3	MS300-31
Heat shrinkage	1hr (100°C)	%	< 0.2	MS300-31

