Technical Data

Thermal Conductive Filler Pad TCFP 15.0

Features & Benefits

- Thermal Conductivity of 15.0 W/m-K
- Highly Conformable with low hardness
- Electrically Isolating
- Low Interfacial Resistance

Applications

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

Introduction

TCLAD TCFP series is a thermally conductive silicone-based 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. TCFP series has excellent thermal conductivity cushioning and gap-filling properties.

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 as needed in the application.

Useable life and storage: TCFP products perform best if stored in a cool and dry / non-humid environment, especially where it is not exposed to any sunlight. Typical shelf life is up to 12 months when properly stored.

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

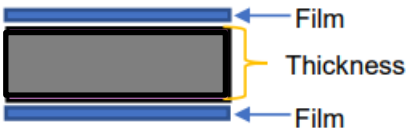
Precautions: Please review the technical data sheet of the material before use of the product in terms of the material characteristics to fit one's application. All values stated here are typical values.

We provide custom solutions for your applications. For further inquiries, please contact your local sales agent or directly to TCLAD sales in your region.

Item	Condition	Unit	Value	Method
General				
Color	Visual	-	Dark Gray	-
Continuous Use Temp	-	°C	-50 ~ 200	-
Thickness	Mitutoyo	mm	0.8 ~ 4	-
Density	25°C	g/cc	3.6	ASTM D792
Hardness	Shore	00	55	ASTM D2240
Electrical				
Dielectric Constant	1 GHz	-	10.5	ASTM D150
Breakdown Voltage	AC	KV/mm	>10	ASTM D149
Volume Resistivity	-	Ω·cm	$>1x10^{13}$	ASTM D257
Thermal				
Thermal Conductivity	-	W/m-K	15.0	ASTM D5470
Durability				
RoHS	-	-	Compliant	
Flame Rating	Vertical Burn Test	-	V-0	UL94

Application Tips:

- **Clean Surfaces**: Ensure that surfaces are thoroughly cleaned and free from debris before applying thermal pads. This will help achieve optimal thermal contact and performance.
- **Select the Right Thickness**: Choose the appropriate pad thickness based on the gap to be filled and the desired level of compression for optimal thermal management.
- **Apply Light Pressure**: Apply light, even pressure when placing the pad to ensure proper adhesion and maximize thermal efficiency between the components.
- **Choose Based on Thermal Conductivity**: Select the thermal pad with the appropriate conductivity for your specific application to ensure effective heat transfer.
- **Proper Storage**: Store pads in a cool, dry environment to maintain their effectiveness and prevent degradation over time.



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