

# DCTP140-s

## High Insulated Thermal Conductive Pad

LiPOLY DCTP140-s is a thermal insulator uses fiberglass cloth as a reinforcement material, combined with thermal conductive silicon, giving it high thermal conduction and great compression strength. The thermal conductivity is 4.5 W/m\*K, the thickness is 0.25~0.45mm. Its high insulation and fiberglass materials increase the strength of its structure making it cut resistant. DCTP140-s is the best choice for high torque screw setting. It functions well with electrical isolative of high power electronic component and the heat sink.

### ■ FEATURES

- / Thermal conductivity:4.5 W/m\*K
- / Excellent insulator
- / Re-workable
- / Fiberglass reinforced

### ■ TYPICAL APPLICATION

- / Power supplies
- / Motor controls
- / EV electric vehicle
- / Automotive electronics
- / 5G base station & infrastructure

### ■ SPECIFICATIONS

- / Roll form / Sheet form
- / Die-cut parts



### ■ TYPICAL PROPERTIES

PROPERTY	DCTP140-s			TEST METHOD	UNIT
Color	Blue			Visual	-
Surface tack 2-side/1-side	2			-	-
Reinforced layer	Fiberglass			-	-
Thickness	0.25	0.30	0.45	ASTM D374	mm
Density	2.8	2.8	2.8	ASTM D792	g/cm <sup>3</sup>
Hardness	80	80	80	ASTM D2240	Shore A
Application temperature	-60~180	-60~180	-60~180	-	°C
ROHS	Compliant	Compliant	Compliant	-	-
ELECTRICAL					
Dielectric breakdown	6	8	11	ASTM D149	KV
Surface resistivity	>10 <sup>12</sup>	>10 <sup>12</sup>	>10 <sup>12</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>10</sup>	>10 <sup>10</sup>	>10 <sup>10</sup>	ASTM D257	Ohm-m
THERMAL					
Thermal conductivity	4.5	4.5	4.5	ASTM D5470	W/m*K
Thermal impedance@20psi	0.357	0.408	0.456	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@60psi	0.223	0.260	0.316	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@100psi	0.207	0.221	0.265	ASTM D5470	°C-in <sup>2</sup> / W

Note: All specifications provided by LiPOLY are subject to change without notice. The test methods used by LiPOLY are based on the TIM Tester method and ASTM D5470 test method. These test methods are used as the definition standards for LiPOLY. Property values provided in this document are not for product specifications or guaranteed. This document does not guarantee the performance and quality required for the purchaser's specific purpose. The purchaser needs to evaluate and verify the safety before using the material. We strongly recommend the purchaser pre-test the product and verify the performance of the product under the purchaser's specific conditions. Liability and use of the product are the responsibility of the end user. LiPOLY makes no warranty as to the suitability, merchantability, or non-infringement of any LiPOLY material or product for any specific or general uses. LiPOLY shall not be liable for incidental or consequential damages of any kind. All LiPOLY products are sold in accordance with the LiPOLY Terms and Conditions in effect at the time of purchase and a copy of which will be furnished upon request. All rights reserved, including LiPOLY trademarks or registered trademarks of LiPOLY or its affiliates. Statements concerning possible or suggested uses made herein shall not be relied upon or be constructed as a guaranty of patent infringement. Copyright LiPOLY.