

# DTT44-s

## **Lightweight Thermal Conductive Gel Pad**

LiPOLY DTT44-s is a soft thermally conductive gel pad specifically designed for network ing commu- nication applications.DTT44-s is designed to focus on Dk and Df to reduce interference in RF modules. DTT44-s has a thermal conductivity of 3.0 W/m\*K. This product can be supplied as stan dard sheets, custom die-cuts or custom molded parts making it suitable for a wide range of appli- cations.

#### **■ FEATURES**

/ Lightweight, Low Density
Thermal conductivity: 3.0 W/m\*K

- / Hardness: Shore 00/50
- / Low dielectric constant
- / For high frequency applications
- / Available in a range of thicknesses

#### **■ TYPICAL APPLICATION**

- / Communications satellite
- / Satellite positioning devices
- / IoT devices
- / Telecommunication hardware
- / 5G base station & infrastructure
- / EV electric vehicle

#### **■ SPECIFICATIONS**

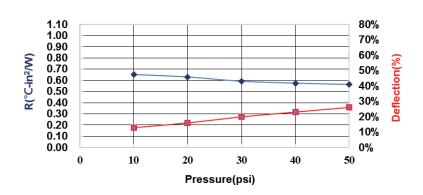
/ Sheet form / Die-cut parts



#### **■ TYPICAL PROPERTIES**

PROPERTY	DTT44-s	TEST METHOD	UNIT
Color	Blue	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	2.2	ASTM D792	g/cm³
Hardness	50	ASTM D2240	Shore OO
Water absorption	0.02	ASTM D570	%
Application temperature	-60~180	-	°C
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	13	ASTM D5470 modify	%
Deflection @20 psi	16	ASTM D5470 modify	%
Deflection @30 psi	20	ASTM D5470 modify	%
Deflection @40 psi	23	ASTM D5470 modify	%
Deflection @50 psi	26	ASTM D5470 modify	%
ELECTRICAL			
Dielectric breakdown	11	ASTM D149	KV/mm
Surface resistivity	>10¹º	ASTM D257	Ohm
Volume resistivity	>10¹º	ASTM D257	Ohm-m
Dielectric constant@2GHz Dk	4.115	ASTM D150	-
Dielectric constant@6GHz Dk	4.214	ASTM D150	-
Dielectric constant@10GHz Dk	3.983	ASTM D150	-
Dissipation factor@2GHz Df	0.00486	ASTM D150	-
Dissipation factor@6GHz Df	0.00704	ASTM D150	-
Dissipation factor@10GHz Df	0.00940	ASTM D150	-
THERMAL			
Thermal conductivity	3.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.652	ASTM D5470	°C-in²/ W
Thermal impedance@20 psi	0.630	ASTM D5470	°C-in²/ W
Thermal impedance@30 psi	0.591	ASTM D5470	°C-in²/ W
Thermal impedance@40 psi	0.574	ASTM D5470	°C-in²/ W
Thermal impedance@50 psi	0.562	ASTM D5470	°C-in²/ W

### Thermal Impedance vs. Pressure vs. Deflection



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 of the product and verify the safety before using the material. We strongly recommend the purchaser pre-test the product and verify the performance of the product and verify the performance o