

# DTT65-s

## Lightweight Thermal Conductive Gel Pad

LiPOLY DTT65-s is a soft thermal-conductive gel pad specifically designed for networking communication applications. DTT65-s is designed to focus on  $D_k$  and  $D_f$  to reduce interference in RF modules. DTT65-s has a thermal conductivity of 5.0 W/m\*K. This product can be supplied as standard sheets, custom die-cuts or custom molded parts making it suitable for a wide range of applications.

### FEATURES

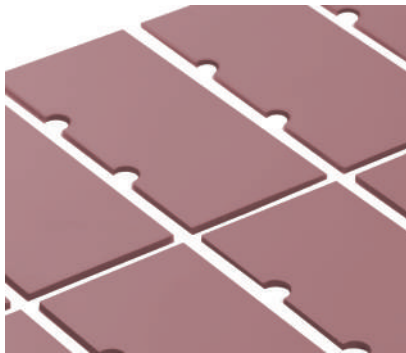
- / Lightweight, Low Density
- Thermal conductivity: 5.0 W/m\*K
- / Hardness: Shore OO/50
- / Low dielectric constant
- / For high frequency applications
- / Available in a range of thicknesses

### 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	DTT65-s	TEST METHOD	UNIT
Color	Red	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	2.1	ASTM D792	g/cm <sup>3</sup>
Hardness	55	ASTM D2240	Shore OO
Water absorption	0.005	ASTM D570	%
Application temperature	-60~180	-	°C
ROHS & REACH	Compliant	-	-
<b>COMPRESSION@1.0mm</b>			
Deflection @10 psi	8	ASTM D5470 modify	%
Deflection @20 psi	11	ASTM D5470 modify	%
Deflection @30 psi	16	ASTM D5470 modify	%
Deflection @40 psi	21	ASTM D5470 modify	%
Deflection @50 psi	26	ASTM D5470 modify	%
<b>ELECTRICAL</b>			
Dielectric breakdown	10	ASTM D149	KV/mm
Surface resistivity	>10 <sup>12</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>13</sup>	ASTM D257	Ohm-m
Dielectric constant@2GHz $D_k$	4.131	ASTM D150	-
Dielectric constant@6GHz $D_k$	4.058	ASTM D150	-
Dielectric constant@10GHz $D_k$	4.013	ASTM D150	-
Dielectric loss@2GHz $D_f$	0.00509	ASTM D150	-
Dielectric loss@6GHz $D_f$	0.00658	ASTM D150	-
Dielectric loss@10GHz $D_f$	0.00780	ASTM D150	-
<b>THERMAL</b>			
Thermal conductivity	5.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.350	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@20 psi	0.342	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@30 psi	0.323	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@40 psi	0.302	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@50 psi	0.281	ASTM D5470	°C-in <sup>2</sup> / W

### Thermal Resistance vs. Pressure vs. Deflection

