

# TEM96D

## Thermal Conductive RF Absorber Pad

LiPOLY TEM96D is a thermally conductive absorber based upon soft magnetic materials dispersed in a polymeric resin. It has a thermal conductivity of 5.0 W/m\*K and dissipates electromagnetic radiation rapidly to mitigate against EMI issues.

### FEATURES

- / Thermal conductivity: 5.0 W/m\*K
- / Excellent absorption characteristics
- / Naturally tacky
- / Reworkable

### TYPICAL APPLICATION

- / IC, CPU, MOS, LED, M/B, Heat sink
- / LCD-TV, Notebook PC, PC, Telecom device, Wireless hub
- / DDR II module, DVD applications, Hand-set applications
- / 5G base station & infrastructure
- / EV electric vehicle

### SPECIFICATIONS

- / Sheet form
- / Die-cut parts

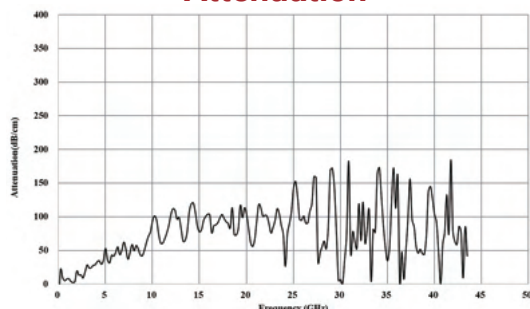
### FREQUENCY APPLICATION

- 2.4 GHz Wi-Fi Router , Bluetooth
- 3.5 GHz 5G Mobile Networks
- 5.0 GHz Wi-Fi Router
- 6.0 GHz Wi-Fi Router
- 12~18 GHz Low Earth Orbit (LEO) System
- 28 GHz 5G Mobile Networks
- 39 GHz 5G Mobile Networks

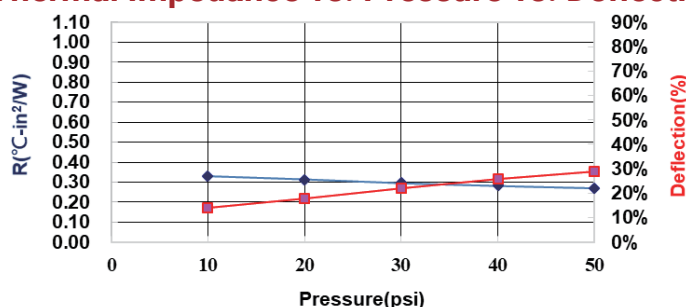
### TYPICAL PROPERTIES

PROPERTY	TEM96D	TEST METHOD	UNIT
Color	Dark Gray	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	0.5~5.0	ASTM D374	mm
Density	3.6	ASTM D792	g/cm <sup>3</sup>
Hardness	65	ASTM D2240	Shore OO
TML	0.04	By LiPOLY	%
Water absorption	0.04	ASTM D570	%
Application temperature	-60~180	-	°C
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	14	ASTM D5470 modify	%
Deflection @20 psi	18	ASTM D5470 modify	%
Deflection @30 psi	22	ASTM D5470 modify	%
Deflection @40 psi	26	ASTM D5470 modify	%
Deflection @50 psi	29	ASTM D5470 modify	%
EMI Attenuation @1.0mm			
EMI attenuation@ 2.4 GHz	18.9	ASTM D4935 modify	dB/cm
EMI attenuation@ 3.5 GHz	27.4	ASTM D4935 modify	dB/cm
EMI attenuation@ 5.0 GHz	52.6	ASTM D4935 modify	dB/cm
EMI attenuation@ 6.0 GHz	50.8	ASTM D4935 modify	dB/cm
EMI attenuation@ 12 GHz	111.6	ASTM D4935 modify	dB/cm
EMI attenuation@ 18 GHz	110.5	ASTM D4935 modify	dB/cm
EMI attenuation@ 28 GHz	58.9	ASTM D4935 modify	dB/cm
EMI attenuation@ 39 GHz	60.0	ASTM D4935 modify	dB/cm
ELECTRICAL			
Surface resistivity	>10 <sup>11</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>10</sup>	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	5.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.329	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@20 psi	0.314	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@30 psi	0.296	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@40 psi	0.283	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@50 psi	0.272	ASTM D5470	°C-in <sup>2</sup> / W

### Attenuation



### Thermal Impedance vs. Pressure vs. Deflection



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