

S818

High Ductile Thermal Conductive Pad

LiPOLY S818 is a product with high ductile thermal conductivity. Having good stretchability and high deformation. The toughness structure can enhance the operability and durability of material. It won't easy to break and deform whether stamped, punched, strip type, or custom cutting. Your best choice for shock and tolerance absorbing.

FEATURES

- / Thermal conductivity: 3.2 W/m*K
- / Easy to assemble
- / High reliability
- / Highly ductile and tear resistant
- / Shock and vibrating absorber

TYPICAL APPLICATION

- / Between CPU and heat sink.
- / Between a component and heat sink
- / Flat-panel displays
- / LED
- / HDDs, DVDs
- / Memory modules
- / Power supplies
- / 5G base station & infrastructure
- / EV electric vehicle

SPECIFICATIONS

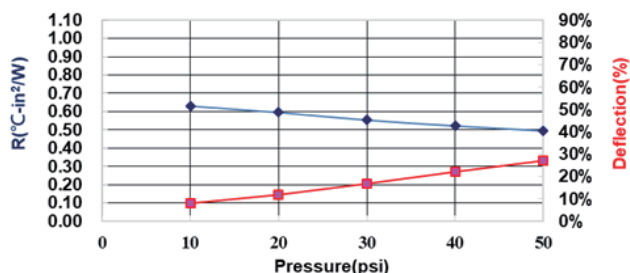
- / Sheet form
- / Die-cut parts



TYPICAL PROPERTIES

PROPERTY	S818	TEST METHOD	UNIT
Color	Brown	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	2.7	ASTM D792	g/cm ³
Hardness	18	ASTM D2240	Shore A
Application temperature	-60~200	-	°C
Short time temp. @10min	-60~270	-	°C
Tensile strength	0.44	ASTM D412	MPa
Elongation	81	ASTM D412	%
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	8	ASTM D5470 modify	%
Deflection @20 psi	12	ASTM D5470 modify	%
Deflection @30 psi	17	ASTM D5470 modify	%
Deflection @40 psi	22	ASTM D5470 modify	%
Deflection @50 psi	27	ASTM D5470 modify	%
ELECTRICAL			
Dielectric breakdown	12	ASTM D149	KV/mm
Surface resistivity	>10 ¹¹	ASTM D257	Ohm
Volume resistivity	>10 ¹⁰	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	3.2	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.631	ASTM D5470	°C-in ² / W
Thermal impedance@20 psi	0.596	ASTM D5470	°C-in ² / W
Thermal impedance@30 psi	0.554	ASTM D5470	°C-in ² / W
Thermal impedance@40 psi	0.522	ASTM D5470	°C-in ² / W
Thermal impedance@50 psi	0.495	ASTM D5470	°C-in ² / W

Thermal Resistance 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 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 construed as a guaranty of patent infringement. Copyright 2024 LiPOLY.