

DTT61-s

Immersion Cooling Thermal Conductive Pad

LiPOLY DTT61-s is a thermal pad designed for immersion cooling environments, suitable for high-power AI chips operating under long-duration conditions and capable of use in cooling fluids. Compared to conventional thermal interface materials, DTT61-s is specifically engineered for immersion cooling systems and can maintain its material integrity and thermal performance during prolonged operation, making it suitable for high heat-load AI server environments. The product supports room-temperature storage and transportation, and is well-suited for applications in immersion cooling architectures.

FEATURES

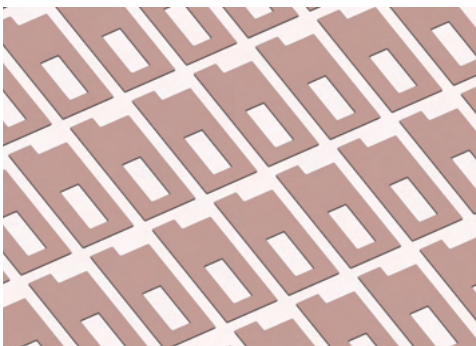
- / Thermal conductivity: 6.0 W/m*K
- / Designed for immersion cooling environments with excellent coolant compatibility for long-term submersion
- / Highly flexible to effectively fill inter face gaps and compensate for manu facturing tolerances
- / Water-resistant with strong electrical insulation for enhanced system safety
- / Maintains material integrity and stable performance during long-term operation
- / Supports room-temperature storage and transport; ideal for high heat flux AI server applications

TYPICAL APPLICATION

- / AI GPU modules and in-house ASICs (NVIDIA / AMD)
- / AI immersion-cooled servers and liquid / hybrid cooling systems
- / High-power accelerator cards and high-performance computing (HPC) systems
- / Industrial servers and edge computing platforms
- / EV, green energy, and high-power electronic modules (including power modules, power amplifiers, and telecom/5G applications)

SPECIFICATIONS

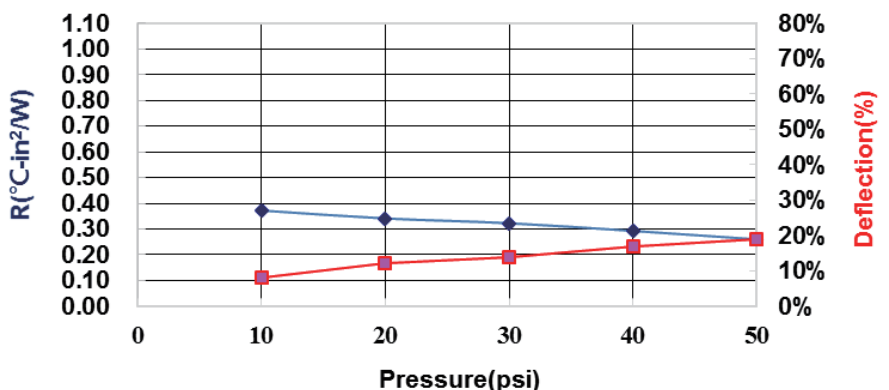
- / Roll form / Sheet form
- / Die-cut parts



TYPICAL PROPERTIES

PROPERTY	DTT61-s	TEST METHOD	UNIT
Color	Red	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	Customized	ASTM D374	mm
Density	3.3	ASTM D792	g/cm ³
Application temperature	-60~200	-	°C
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	4	ASTM D5470 modify	%
Deflection @20 psi	5	ASTM D5470 modify	%
Deflection @30 psi	8	ASTM D5470 modify	%
Deflection @40 psi	14	ASTM D5470 modify	%
Deflection @50 psi	19	ASTM D5470 modify	%
Dielectric Properties			
Dielectric breakdown	8	ASTM D149	KV/mm
Surface resistivity	>10 ¹¹	ASTM D257	Ohm
Volume resistivity	>10 ¹⁰	ASTM D257	Ohm-m
Thermal Properties			
Thermal Conductivity	6.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.387	ASTM D5470	°C-in ² / W
Thermal impedance@20 psi	0.375	ASTM D5470	°C-in ² / W
Thermal impedance@30 psi	0.356	ASTM D5470	°C-in ² / W
Thermal impedance@40 psi	0.333	ASTM D5470	°C-in ² / W
Thermal impedance@50 psi	0.317	ASTM D5470	°C-in ² / 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 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 LiPOLY.