

## Double-Sided Thermal Conductive Adhesive

LiPOLY PR27SS is a very thin, high insulator with a thickness of 0.15mm. It uses Polyimide Film as the reinforcement material, which can increase the tensile strength. It's suitable for high power transistors, electrical equipment, and will be the best choice for auto-distribution systems.

### ■ FEATURES

- / Thermal conductivity:1.2 W/m\*K
- / Good insulator
- / Low thermal impedance
- / Reworkable
- / High performance

### ■ TYPICAL APPLICATION

- / Power supplies
- / Motor controls
- / Power semiconductors

### ■ SPECIFICATIONS

- / Sheet form
- / Die-cut parts



### ■ TYPICAL PROPERTIES

PROPERTY	PR27SS	TEST METHOD	UNIT
Color	Gray	Visual	-
Surface tack 2-side/1-side	2	-	-
Reinforced layer	Polyimide	-	-
Thickness	0.15	ASTM D374	mm
Density	1.5	ASTM D792	g/cm <sup>3</sup>
Hardness	80	ASTM D2240	Shore A
Application temperature	-60~120	-	°C
ROHS&REACH	Compliant	-	-
ADHESION			
Initial tack	13	PSTC-6	cm
Lap shear strength	60	ASTM D1002	N/cm <sup>2</sup>
Die shear strength@25°C	100	-	N/cm <sup>2</sup>
Die shear strength@80°C	50	-	N/cm <sup>2</sup>
Holding power 1kg @25°C	>10000	PSTC-7	min
Holding power 1kg @80°C	>10000	PSTC-7	min
90°Peeling strength @ 25°C, 72 hrs	>10	ASTM D3330	N/inch
90°Peeling strength @ Thermal aging	>15	80°C 1000 hrs	N/inch
90°Peeling strength @ HAST	>18	85°C/85%RH 1000 hrs	N/inch
90°Peeling strength @ Thermal cycling	>14	-40°C~120°C 500 cycles	N/inch
ELECTRICAL			
Dielectric breakdown	6	ASTM D149	KV
Surface resistivity	>10 <sup>12</sup>	ASTM D257	Ohm
Volume resistivity	>10 <sup>12</sup>	ASTM D257	Ohm-m
THERMAL			
Thermal Conductivity	1.2	ASTM D5470	W/m*K
Thermal impedance@20psi	0.534	ASTM D5470	°C-in2/ W
Thermal impedance@60psi	0.357	ASTM D5470	°C-in2/ W
Thermal impedance@100psi	0.312	ASTM D5470	°C-in2/ W

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 2022 LiPOLY.