

# TPS31&TPS32

## Lightweight Two-Part Thermal Conductive Sealing Glue

LiPOLY's TPS31/TPS32 is a low-density, two-part compound silicone base thermal conductive sealing material. It's low viscosity and excellent fluidity can tightly fill the gaps of electrical components and cover the tolerances between components. It has excellent thermal conductivity, low density and insulation properties.

### ■ FEATURES

- / Lightweight, Low Density, Thermal Conductivity 0.55 & 1.5 W/m\*K
- / Medium-to-high hardness silicone material with excellent insulation and weather resistance
- / Suitable for automatic dispensing machine
- / TPS31 Moisture absorb hardening reaction at room temperature.
- / TPS32 Hardened at room temperature, also can be heated to accelerate the hardening reaction.



### ■ TYPICAL APPLICATION

- / Heat Dissipation & lightweight applications, such as Automotive electronic devices, Mobile communication device, Drone & aircraft, Sports and leisure electronic products, Portable game consoles, VR devices and etc.
- / 5G base station & infrastructure
- / EV electric vehicle

### ■ PRESERVATION

- / It can be preserved for 24 months under the condition of unopened and under room temperature 30°C.

### ■ PRECAUTIONS

- / TPS32 If the interface has organic compounds such as Nitrogen, Phosphorous, Sulfur etc., and heavy metals ionic compound such as Tin, Lead, Mercury, Antimony, Bismuth, Arsenic etc., and Organometallic-salts etc., which will cause the gel incomplete curving even will be non-curved.

### ■ TYPICAL PROPERTIES

PROPERTY	TPS31	TPS32	TEST METHOD	UNIT
Color	White (A part) Translucent (B part)	White(A part) Black(B part)	Visual	-
Resin Base	Silicone	Silicone	-	-
A:B	100:10	100:100	-	-
Viscosity	1.9	3.2	ISO 3219	Pa.s
Density	1.35	1.72	ASTM D792	g/cm <sup>3</sup>
Application temperature	-60~180	-60~180	-	°C
Working Time	25°C/30 min	25°C/1 hr	By LiPOLY	-
Curing Condition 2	25°C/48 hr	80°C/1 hr	By LiPOLY	-
Curing Condition 3	-	25°C/24 hr	By LiPOLY	-
Hardness	55	65	ASTM D2240	Shore A
Shelf Life	24 months	24 months	-	-
ROHS & REACH	Compliant	Compliant	-	-
ELECTRICAL				
Dielectric breakdown	10	9	ASTM D149	KV/mm
Volume resistivity	>10 <sup>13</sup>	>10 <sup>13</sup>	ASTM D257	Ohm-m
THERMAL				
Thermal conductivity	0.55	1.5	ASTM D5470	W/m*K

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 constructed as a guaranty of patent infringement. Copyright LiPOLY.