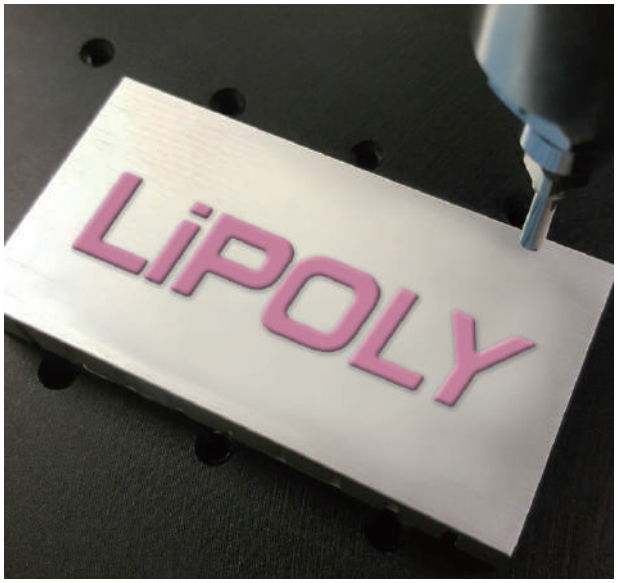
# PK605DM

## Two-Part Thermal Conductive Gap Filler

LiPOLY PK605DM is a two-part liquid gap filler, fast cured at room temperature or elevated temperature. With a thermal conductivity of 5.0 W/m*K, PK605DM provides high thermal conductivity and low thermal impedance. It is ideally suited for dispensing using the dispensing robot or by syringe.

### FEATURES

/ Thermal conductivity: 5.0 W/m*K
/ Fast curing in normal atmospheric temperature
/ Great reliability
/ Great sealing in low pressure




### TYPICAL APPLICATION

/ Between CPU and heat sink
/ Between a component and heat sink
/ Power supplies
/ High speed mass storage drives
/ Telecommunication hardware
/ Electric vehicle& Automotive battery
/ 5G base station & infrastructure
/ EV electric vehicle

### CONFIGURATIONS

/ Cartridges: 50ml, 400ml
/ Other special and custom sizes are available upon request

### DISPENSING INSTRUCTIONS

Use the disposable plastic static mixing nozzles to mix parts A and B together to the desired ratio. Liquid gap fillers can be dispensed using an automatic dispensing machine or a manual dispensing tool that can be provided by LiPOLY upon request/purchase. The disposable plastic static mixing nozzles cannot be re-used.

### STORAGE

Two-part liquid gap fillers should be stored in climate-controlled environments at or below 25°C. Keep liquid gap fillers away from direct sunlight and away from high-temperature environments.

### PRESERVATION

It can be preserved for 24 months under the condition of unopened and under room temperature 25℃.

### PRECAUTIONS

The two-part liquid gap filler may not cure properly if it comes into contact with certain substances, including amine, sulfur, organophosphorus compounds, and organotin compounds. Please avoid the following substances when handling: (N, P, S, Sn, Pb, Hg, Sb, Bi, As) Ensure a clean mixing container is used (e.g.: paper cup or plastic cup) before injecting the A and B parts into the mixing container. The plasticizer, wax from the cups, varnish or the epoxy from the oven may contaminate the A and B parts. You are reminded to pre-test the gap filler before using it.

## PLEASE NOTE

/ Using Automatic Homogenizer can improve the sedimentation phenomenon rapidly to achieve a homogeneous effect. We strongly recommend put cartridge in homogenizer for 3~5 minutes before dispensing the material. Notice: if material homogenized more than 24 hours, it must be homogenized again while use it.

/ The two-part items, due to the different liquid levels of the agents the mixture cannot reach a 1:1 ratio it might cause curing not entirely. We recommend to squeeze out 1.5g treat as waste.

/ It's recommended that the diameter of mixing tube outlet should be 3mm at least, which can solve the possible problem of poor fluidity caused by ambient temperature.

## TYPICAL PROPERTIES

| PROPERTY | PK605DM | TEST METHOD | UNIT |
|---|---|---|---|
| Color | Red (A part)<br>White (B part) | Visual | - |
| Solid content | 100%<br>(Two-part : 100:100) | - | - |
| Viscosity A | 110 | ISO 3219 | Pa.s |
| Viscosity B | 80 | ISO 3219 | Pa.s |
| Density | 3.3 | ASTM D792 | g/cm³ |
| Shelf life | 24 months | - | - |
| ROHS & REACH | Compliant | - | - |
| SOLID(AFTER CURE) | | | |
| Thermal conductivity | 5.0 | ASTM D5470 | W/m*K |
| Thermal impedance@10mils BLT | 0.092 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@20mils BLT | 0.171 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@30mils BLT | 0.254 | ASTM D5470 | °C-in²/ W |
| Hardness | 85 | ASTM D2240 | Shore OO |
| Working temp (long term) | -60 ~ 200 | - | °C |
| Operating ambient temp | 20 ~ 30 | - | °C |
| ELECTRICAL | | | |
| Dielectric breakdown | 8 | ASTM D149 | KV/mm |
| Surface resistivity | $>10^{11}$ | ASTM D257 | Ohm |
| Volume resistivity | $>10^{10}$ | ASTM D257 | Ohm-m |
| CURE SCHEDULE | | | |
| Pot life @ 25°C | 10~15 | By LiPOLY | min |
| Surface dry @ 25°C | 20~25 | By LiPOLY | min |
| Cure @ 25°C | 25~30 | By LiPOLY | min |
| Cure @ 100°C | 40 | By LiPOLY | sec |
| Cure @ 120°C | 10 | By LiPOLY | sec |

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 orconsequential 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 2023 LiPOLY.

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