

# PK223DM

## Two-Part Fast Curing Thermal Conductive Gel

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LiPOLY PK223DM is a two-part liquid gap filler, fast cured at room temperature or elevated temperature. With a thermal conductivity of 2.0 W/m\*K, PK223DM provides high thermal conductivity and low thermal impedance. It is ideally suited for dispensing using the LiPOLY dispensing robot or by syringe. Available in 50ml and 400ml cartridges.

### Features-

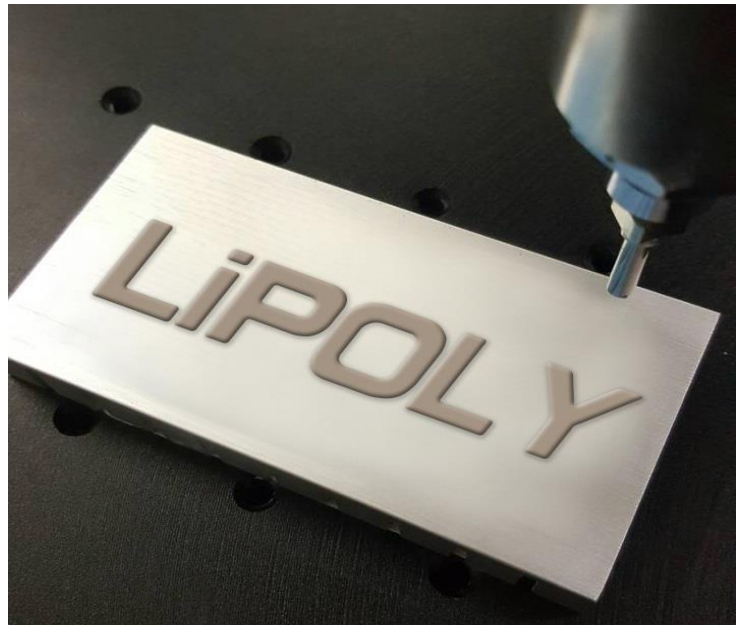
- Thermal conductivity:2.0 W/m\*K
- Fast curing in normal atmospheric temperature
- Flame retardant
- Great reliability
- Great sealing in low pressure

### Typical Applications-

- Between CPU and heat sink
- Between a component and heat sink
- Power supplies
- High speed mass storage drives
- Telecommunication hardware

### 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.

### Shelf Life-

60 months unopened under standard room conditions.

### 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.

#### Note:

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### Typical Properties-

PROPERTY	PK223DM	TEST METHOD	UNIT
Color	White (A part)	Visual	-
	Gray (B part)		
Solid content	100% (Two-part : 1:1 )	-	-
Viscosity A	120	ISO 3219	Pa.s
Viscosity B	110	ISO 3219	Pa.s
Density	2.2	ASTM D792	g/cm <sup>3</sup>
Shelf Life	60 months	-	-
ROHS&REACH	yes	-	-

### SOLID(AFTER CURE)

Thermal Conductivity	2.0	ASTM D5470	W/m*K
Thermal impedance@10mils BLT	0.29	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@20mils BLT	0.57	ASTM D5470	°C-in <sup>2</sup> / W
Thermal impedance@30mils BLT	0.71	ASTM D5470	°C-in <sup>2</sup> / W
Hardness	50	ASTM D2240	Shore OO
Volume Resistivity	>10 <sup>10</sup>	ASTM D257	Ohm-m
Working Temp (long term)	-60 to 200°C	-	-
Operating ambient Temp	20 to 30°C	-	-

### CURE SCHEDULE

Pot Life @ 25°C	10~15	By LiPOLY	min
Surface dry @ 25°C	20~25	By LiPOLY	min
Cure @ 25°C	30~35	By LiPOLY	min
Cure @ 100°C	72	By LiPOLY	sec
Cure @ 120°C	20	By LiPOLY	sec

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