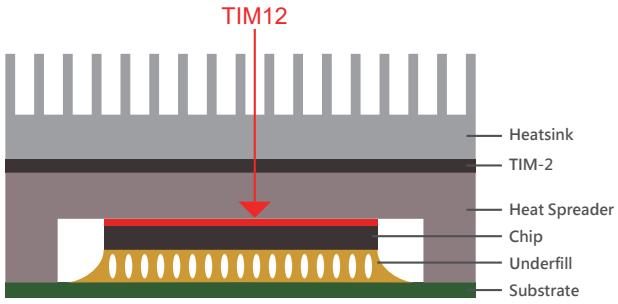
TIM12

Thermal Conductive Die Attach Adhesive

LiPOLY's TIM12 is a two-part compound silicone base thermal conductive adhesive gel. The high deformation properties perfectly fill small air gaps to eliminate tolerances. It's ideally suited for manual dispensing applicator and dispensing robot. Friendly design escape from high cost of cold-chain transportation and freeze preservation.

FEATURES

/ Excellent thermal conductivity 2.0 W/m*K
/ No freeze preservation required.
/ Dispensable for serial manufacture
/ Adhesive for IC packaging design



TYPICAL APPLICATIONS

/ Designed to provide efficient thermal transfer for the cooling of chip packaging as TIM-1.

CONFIGURATIONS

/ Cartridges: 50ml

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

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	TIM12	TEST METHOD	UNIT
Color	Gray (A part) White (B part)	Visual	-
Resin base	Silicone	-	-
Form	Grease	Visual	-
Viscosity A	190	ISO 3219	Pa.s
Viscosity B	150	ISO 3219	Pa.s
Density	2.7	ASTM D792	g/cm³
Application temperature	-50~180	-	°C
Working time	24 @ RT	By LiPOLY	hrs
Cure conditions	125°C / 90 mins	By LiPOLY	-
Volatile content	< 0.4	150°C x 24h	%
BLT	27	-	μm
Elongation	170	ASTM D412	%
Adhesive strength	0.64	-	-
ELECTRICAL			
Dielectric breakdown	25	ASTM D149	KV/mm
Surface resistivity	$>10^{13}$	ASTM D257	Ohm
Volume resistivity	$>10^{13}$	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	2.0	ASTM D5470	W/m*K