

NEP220

Non-Silicone Two-Part Thermal Conductive Adhesive

LiPOLY NEP220 is a silicone-free two-part liquid gap filler that does not volatilize low-molecular-weight siloxane. With high viscosity and good adhesion, it can be fast cured at room temperature or elevated temperature. With a thermal conductivity of 2.2 W/m*K, NEP220 provides high thermal conductivity and low thermal impedance. It is ideally suited for dispensing using the dispensing robot or by syringe.

■ FEATURES

- / Thermal conductivity: 2.2 W/m*K
- / Can be applied with dispenser
- / Room Temperature curing or heating curing
- / Low compression stress during assembly
- / Excellent adhesion to metal & PCB

■ TYPICAL APPLICATION

- / Electronic components: IC 、 CPU MOS 、 Mother Board 、 Wireless Hub Telecom Device 、 Automotive electronics 、 Computer 、 Peripherals and High frequency magnetic inductor
- / Between any heat-generating component and a heat sink.
- / 5G base station & infrastructure
- / EV electric vehicle

■ CONFIGURATIONS

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

■ PRESERVATION

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



■ TYPICAL PROPERTIES

PROPERTY	NEP220	TEST METHOD	UNIT
Color	Black Gray (A part) Black (B part)	Visual	-
Resin base	Epoxy	-	-
A:B	100:100	-	-
Viscosity A	170	ISO 3219	Pa.s
Viscosity B	167	ISO 3219	Pa.s
Thixotropic Index	3.4	ISO 3219	-
Density	2.6	ASTM D792	g/cm ³
Application temperature	-40~120	-	°C
Surface dry	25°C / 1.5 hr	By LiPOLY	-
Curing condition1	25°C / 3.5 hr	By LiPOLY	-
Curing condition2	40°C / 1.5 hr	By LiPOLY	-
Curing condition3	60°C / 30 min	By LiPOLY	-
Curing condition4	80°C / 10 min	By LiPOLY	-
Hardness	90	ASTM D2240	Shore A
Elongation at break	<1	ISO527	%
Tensile strength	65	ISO527	N/cm ²
Lap shear to aluminum	350	ASTM D1002	N/cm ²
Shelf life	24 months	-	-
ROHS & REACH	Compliant	-	-
ELECTRICAL			
Dielectric breakdown	14	ASTM D149	KV/mm
Volume resistivity	>10 ¹¹	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	2.2	ISO 22007-2	W/m*K