

NL-putty04-s

Non-Silicone Lightweight Thermal Conductive Putty

LiPOLY's NL-putty04-s is a non-silicone, low-density gap filling material without volatile low-molecular-weight siloxane volatile, low total volatile gas. It is suitable for electronic products and automotive electronic devices. Its low density and lightweight characteristics improve product performance, reduce production costs, and minimize material usage and energy consumption. With a thermal conductivity of 4.0 W/m*K and high deformability, it can flexibly adapt to gap and has tolerance compensation properties. It can overcome overflow and drying problems, improve heat conduction, and is suitable for automated dispensing production.

■ FEATURES

- / Lightweight, Low Density, Thermal Conductivity: 4.0 W/m*K
- / High flow rate, extrusion rate under 90psi&60s conditions: 29g/min
- / Bond line thickness:100~1500µm
- / Non-silicone resin materials
- / Designed to remove manufacturing tolerances
- / Does not produce stress on delicate components
- / No vertical flow
- / Dispensable for serial manufacture
- / For any high compression and low stress application

■ TYPICAL APPLICATION

/ lightweight applications, such as Automotive electronic devices, Mobile communication device, Drone & aircraft,Sports and leisure electronic products, Portable computers and tablets,wearable devices, Portable game consoles, VR devices and etc.

■ CONFIGURATIONS

/ Cartridges: 30ml, 150ml / Bucket: 1kg, 25kg

PRESERVATION

It can be preserved for 60 months under the condition of unopened and under room temperature 25°C.

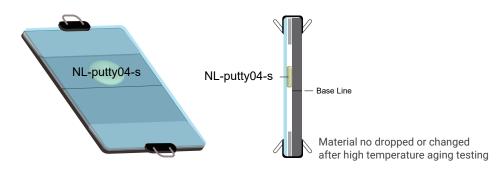


■ TYPICAL PROPERTIES

PROPERTY	NL-putty04-s	TEST METHOD	UNIT
Color	Yellow	Visual	-
Resin base	Non-Silicone	-	-
Viscosity	2500	DIN 53018	Pa.s
Flow Rate (30cc EFD tube, 2.35mm Orifice diameter, 90psi&60s)	29	By LiPOLY	g/min
Density	2.3	ASTM D792	g/cm³
Application temperature	-60~125	-	°C
Bond line thickness	100~1500	-	μm
Shelf life	60 months	-	-
ROHS & REACH	Compliant	-	-
ELECTRICAL			
Dielectric breakdown	13	ASTM D149	KV/mm
Volume resistivity	>1010	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	4.0	ASTM D5470	W/m*K
Thermal impedance@10psi / 80°C	0.088	ASTM D5470	°C-in²/ W
Thermal impedance@30psi / 80°C	0.081	ASTM D5470	°C-in²/ W
Thermal impedance@50psi / 80°C	0.079	ASTM D5470	°C-in²/ W

■ VERTICAL RELIABILITY

sing 1.5mm pad as a gap control, put the putty between the aluminum and the glass panel mark the initial position. Then, place it in the oven with 125°C for 1,000 hours and observe its displacement after reliability test



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 DS470 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 perfect 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 Testers 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.