N-putty-s

Non-Silicone Thermal Conductive Putty

LiPOLY N-putty-s series is a non-silicon thermally conductive material without volatilization of low molecular siloxane, and low total volatile gas. With a thermal conductivity of 3.5 W/m*K, the high deformation can perfectly fill small air gaps to eliminate tolerances. It can also overcome spillage and drying issues to increase thermal conductivity, making it ideal for dispensing with dispensing robots.

FEATURES

- / Thermal conductivity:3.5 W/m*K
- / 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

- / Between CPU and heat sink
- / Between a component and heat sink
- / High speed mass storage drives
- / Telecommunication hardware
- / Flat-panel displays
- / Set-top box
- / IP CAM
- / 5G base station & infrastructure
- / EV electric vehicle

CONFIGURATIONS

/ Cartridges: 30ml, 55ml, 330ml / 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	N-putty-s	TEST METHOD	UNIT
Color	Gray	Visual	-
Resin base	Non-Silicone	-	-
Viscosity	15000	DIN 53018	Pa.s
Flow Rate (30cc EFD tube, 2.35mm Orifice diameter, 90psi&60s)	14	By LiPOLY	g/min
Density	3.0	ASTM D792	g/cm³
Application temperature	-60~150	-	°C
Bond line thickness	100~1500	-	μm
Shelf life	60 months	-	-
ROHS & REACH	Compliant	-	-
ELECTRICAL			
Dielectric breakdown	12	ASTM D149	KV/mm
Volume resistivity	>1013	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	3.5	ASTM D5470	W/m*K
Thermal impedance@10psi / 80°C	0.066	ASTM D5470	°C-in²/ W
Thermal impedance@30psi / 80°C	0.059	ASTM D5470	°C-in²/ W
Thermal impedance@50psi / 80°C	0.051	ASTM D5470	°C-in²/ W

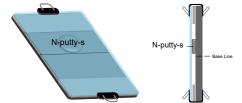
PLEASE NOTE

/ 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.

VERTICAL RELIABILITY

Using 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℃ for 1,000 hours and observe its displacement after reliability test



Material no dropped or changed after high temperature aging testing

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 pretest the product and verify the performance of the product targets' specific conditions. Liability and use of the product are the responsibility of the end user. LiPOLY makes no warranty as to the suitability, mon-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 (minished upon request. All inplot 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 2024 LiPOLY.

