# S-putty

## Thermal Conductive Putty

LiPOLY S-putty is a one-part dispensable material with thermal conductivity 3.5 W/m*K. High deformation can fill small air gaps perfectly to remove tolerance. It also can overcome overflow and drying problems to increase the thermal conductivity. S-putty is a great alternative to thermal grease and ideally suited for dispensing using the dispensing robot.

## FEATURES

/ Thermal conductivity:3.5 W/m*K
/ Bond line thickness:100-1500μm
/ 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

## TYPICAL PROPERTIES

| PROPERTY | S-putty | TEST METHOD | UNIT |
|---|---|---|---|
| Color | Blue | Visual | - |
| Resin base | Silicone | - | - |
| Viscosity | 2000 | DIN 53018 | Pa.s |
| Density | 3.0 | ASTM D792 | g/cm³ |
| Application temperature | -60~180 | - | °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 | 0.079 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@30psi | 0.071 | ASTM D5470 | °C-in²/ W |
| Thermal impedance@50psi | 0.061 | ASTM D5470 | °C-in²/ W |

## CONFIGURATIONS

/ Cartridges: 30ml, 55ml, 330ml
/ Bucket: 1kg, 25kg

## PRESERVATION

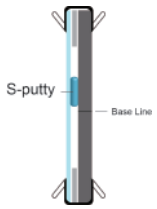
It can be preserved for 60 months under the condition of unopened and under room temperature 25℃.


## 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