# 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

#### 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**

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|-------------------------|-----------|-------------|-----------|
| 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 |
|                         |           |             |           |

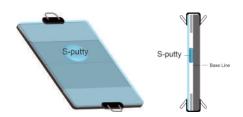
#### **■ PLEASE NOTE**

/ 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°C for 1,000 hours and observe its displacement after reliability test



Material no dropped or changed after high temperature aging testing

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