

# Silicone Thermal Putty Pad / XK-P80-Putty

## Introduction

High thermal performance and reliability for irregular surface, excellent flowability and gap filling capacity under low bearing capacity and high compressive load

## Features

- High reliability
- High compressibility
- Low bearing capacity



### 1. Product properties

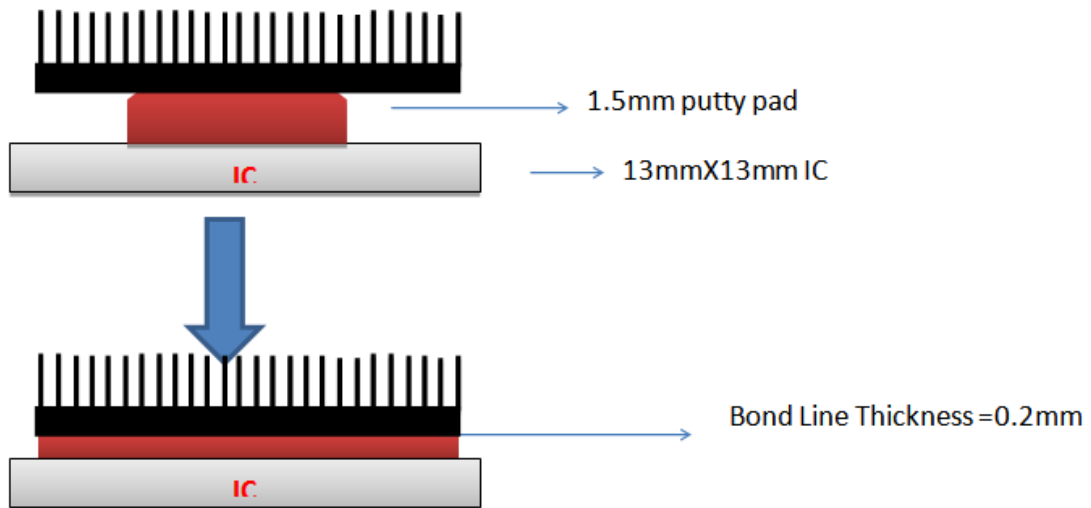
|                      | XK-P80-Putty     | Unit              | Test Method |
|----------------------|------------------|-------------------|-------------|
| Thickness            | 1.0/ 1.5         | mm                |             |
| Color                | Gray             |                   | Visual      |
| Construction         | Silicone         |                   |             |
| Op. temp. range      | -45~150          | °C                |             |
| Density              | 3.4              | g/cm <sup>3</sup> | ASTM D792   |
| Thermal Conductivity | 8.0              | W/mK              | ASTM D5470  |
| Breakdown Voltage    | >10              | KV/mm             | ASTM D149   |
| Volume Resistance    | 10 <sup>11</sup> | Ohm-cm            | ASTM D257   |
| Total Mass Loss      | <0.4%            | %                 | ASTM E595   |
| Tensile strength     | Na               | Psi               | ASTM D412   |
| Elongation           | Na               | %                 | ASTM D412   |
| Flame Rating         | V-0              |                   | UL-94       |
| REACH/RoHS Compliant | Yes              |                   | REACH/ RoHS |

### 2. Thermal properties

|              | XK-P80-P            |
|--------------|---------------------|
| RA           | Kin <sup>2</sup> /W |
| compress 30% | 0.18                |
| compress 40% | 0.15                |
| compress 50% | 0.12                |
| compress 70% | 0.11                |
| compress 90% | 0.08                |

### 3. The Compression Load

|              | XK-P45-P      |
|--------------|---------------|
|              | Pressure(psi) |
| compress 30% | 12            |
| compress 40% | 29            |
| compress 50% | 49            |
| compress 70% | 61            |
| compress 90% | 85            |



$$\begin{aligned}
 X &= \sqrt{(BLT \times IC \text{ Area}) / 1.5mm} \\
 &= \sqrt{(0.2mm \times 13mm \times 13mm) / 1.5mm} \\
 &= 4.7
 \end{aligned}$$

**USE 5mm X 5mm @1.5mm Thickness**