

### Product Description

VOT VK-X5 is a premium-grade thermal interface gap filler engineered for advanced electronic systems that demand both high heat transfer and extremely low mechanical stress. Delivering an impressive thermal conductivity of 5.0 W/m-K alongside a highly compliant Shore OO 45 hardness, VK-X5 stands out as the ultimate refined solution within its performance class.

Unlike conventional high-conductivity pads that often become rigid and difficult to compress, VK-X5 features a highly optimized polymer matrix. This provides superior pressure-versus-deflection characteristics, ensuring intimate surface wetting and ultra-low contact resistance. It effortlessly blankets uneven topographies and absorbs severe component tolerances, transferring heat away from delicate ICs without exerting damaging stress on the PCB or solder joints. VK-X5 is the definitive choice for engineers seeking an uncompromised

### FEATURES & BENEFITS

- **Premium Thermal Performance:**

5.0 W/m-K conductivity ensures rapid heat dissipation for power-dense components.

- **Ultra-Compliant & Low Stress:**

The Shore OO 45 formulation requires minimal compression force, protecting fragile BGA packages and delicate components.

- **Superior Surface Wetting:**

Naturally tacky surface conforms perfectly to microscopic irregularities, significantly reducing interfacial thermal resistance.

- **Refined Mechanical Stability:**

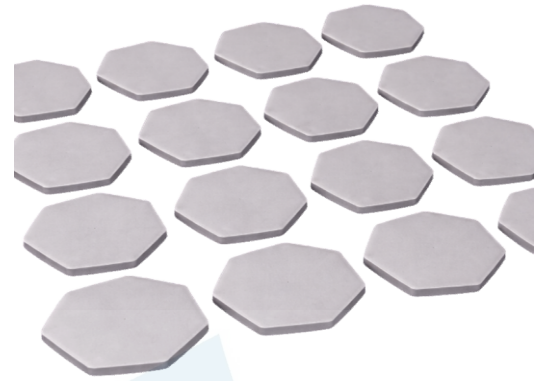
Highly resilient structure prevents tearing during assembly and resists pump-out under continuous thermal cycling.

- **Shock & Vibration Absorbing:**

Excellent dampening properties enhance the overall mechanical reliability of the end device.

- **Clean & Safe:**

Low silicone extractables formulation, avoiding contamination in sensitive electrical and optical environments.



| PROPERTY                                  | VK-X5                         | TEST METHOD     |
|-------------------------------------------|-------------------------------|-----------------|
| <b>Construction</b>                       | Ceramic Filled Silicone sheet | N/A             |
| <b>Color</b>                              | Light Grey                    | Visual          |
| <b>Density</b>                            | 3.1 g/cc                      | ASTM D792       |
| <b>Thickness Range</b>                    | 0.3mm~6.0mm                   | N/A             |
| <b>Thermal Conductivity</b>               | 5.0 W/m-K                     | ASTM D5470      |
| <b>Rth at 1mm,10psi</b>                   | 0.28 °C-in <sup>2</sup> /W    | ASTM D5470      |
| <b>Hardness Shore OO</b>                  | 45                            | ASTM D2240      |
| <b>Dielectric Constant@1MHz</b>           | 7.4 @1MHz                     | ASTM D150       |
| <b>Dielectric Strength</b>                | >8 KVac/mm                    |                 |
| <b>Volume Resistivity</b>                 | 10 <sup>13</sup> Ω-cm         | ASTM D257       |
| <b>Temperature Range</b>                  | -40°C to 180°C                | VOT Test Method |
| <b>Flammability Rating</b>                | V-0                           | UL 94           |
| <b>Siloxane Volatile Content (D3-D20)</b> | Not Detected                  | GC-MS           |

### Typical Applications

- High-Performance Computing (Servers, GPU modules, and Memory banks.)
- Automotive Electronics
- 5G Telecommunications
- Advanced Consumer Electronics
- Power Electronics
- Optoelectronics
- Industrial Automation
- Medical Devices

### Storage Conditions

- Storage Temperature: 15°C to 35°C, RH <50%
- Shelf Life: 12 months under above conditions

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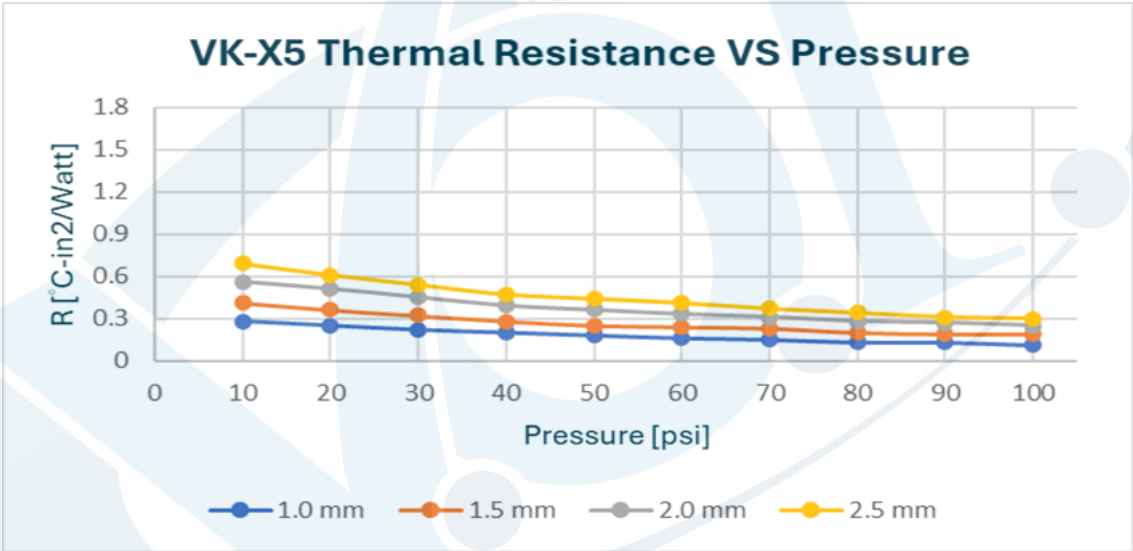
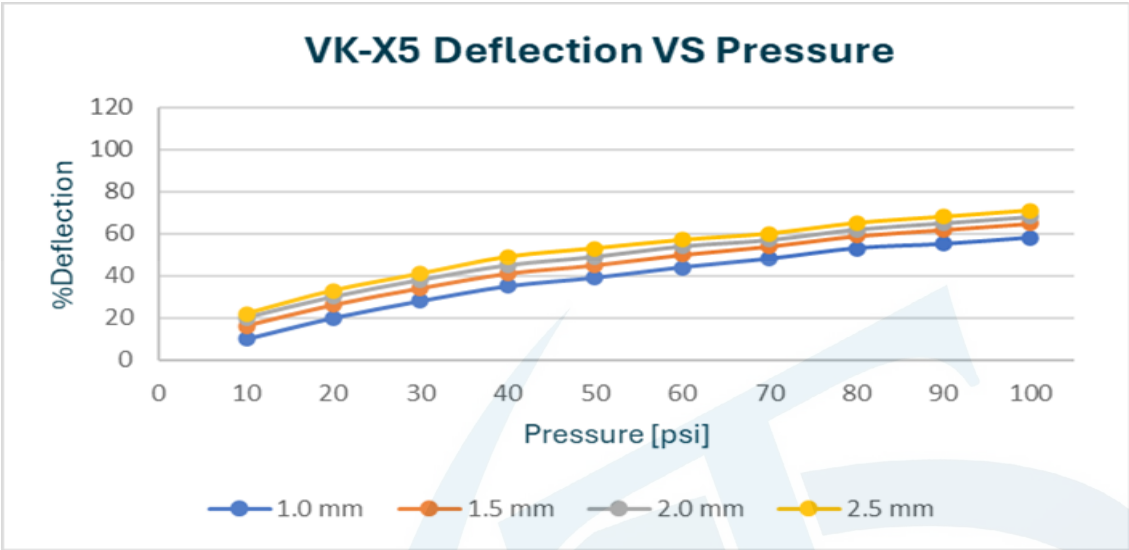
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Limited Warranty: For a period of 12 months from the date of first sale, VOT warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s).

NOTE: VOT does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or of any final product into which the product(s) may be incorporated by the purchaser and/or user. The purchaser and/or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.



|            |                                                                                |   |                                          |   |                                     |
|------------|--------------------------------------------------------------------------------|---|------------------------------------------|---|-------------------------------------|
| <b>VK-</b> | <b>X5.</b>                                                                     | - | <b>XXXXXX</b>                            | - | <b>XXX</b>                          |
| Gap filler | 1: one side tack free<br>3: VK-6100 on one side<br>4: fiberglass reinforcement |   | size<br>200200=20*20<br>254254=25.4*25.4 |   | Thickness<br>008=0.8mm<br>010=1.0mm |

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