

## **ENGLISH**

## Datasheet

# Non-Silicone gel type thermal interface material, 4 W/m K

## RS Stock Numbers: 9156098, 9156092, 9156102

GCS-040-NS is a high performance thermal interface non-silicone gel pad.

### Features

- Low contact resistance
- NO Low MW siloxane, Siloxane Volatiles D4~D20 0%
- Super soft
- High compressibility
- Very good thermal conductivity
- Compliancy, high compressibility
- Natural tack
- Low oil bleed- long term stability
- Electrical insulation

### Configurations

| RS Stock Number | Part number           | Total thickness | Sheet size |
|-----------------|-----------------------|-----------------|------------|
| 9156098         | GCS-040-NS-150150-0.5 | 0.5mm           | 150x150mm  |
| 9156092         | GCS-040-NS-150150-1.0 | 1.0mm           | 150x150mm  |
| 9156102         | GCS-040-NS-150150-2.0 | 2.0mm           | 150x150mm  |

## Applications

### **Displays**, lighting protection

PDP TV, LCD CCFL and LCD LED display backlight, LED signage, projectors and new display technology.

#### Consumer and industrial electronics

Mobile telephone, communication base station, laptop, notebook, computer servers, handheld gaming devices, memory modules, CPU modules, amplifiers, batteries, and DC to DC covertors power supplies.

### Automotive electronics

Engine management, electronic suspension, braking systems, communication and multimedia systems, comfort conveniance features, vehicle lighting, vehicle controls, hybrid vehicle battery thermal management, electric vehicle thermal management.





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| Characteristic                     | Test Method | Value             |
|------------------------------------|-------------|-------------------|
| Colour                             | Visual      | Grey              |
| Thickness mm                       | -           | 0.5 - 2.0         |
| Density g/cm <sup>3</sup>          | ASTM D792   | 3.0               |
| Hardness (Shore 00)                | ASTM D2240  | 60                |
| Application temperature °C         | -           | -40 - +125        |
| Tensile strength psi               | ASTM D149   | 10                |
| Elongation %                       | ASTM D149   | 20                |
| Total mass loss %                  | ASTM E595   | <0.4              |
| Compression at T1.0mm              |             |                   |
| Deflection@10 psi %                | ASTM D575   | 15                |
| Deflection @20 psi %               | ASTM D575   | 21                |
| Deflection @30 psi %               | ASTM D575   | 33                |
| Deflection @40 psi %               | ASTM D575   | 42                |
| Deflection @50 psi %               | ASTM D575   | 40                |
| Electrical                         |             |                   |
| Dielectric breakdown kV/mm         | ASTM D419   | >10               |
| Volume resistivity Ohm-m           | ASTM D257   | >10 <sup>13</sup> |
| Thermal                            |             |                   |
| Thermal conductivity W/m*K         | ASTM D5470  | 4.0               |
| Thermal impedence @10 psi °C-In2/W | ASTM D5470  | 0.38              |
| Thermal impedence @30 psi °C-In2/W | ASTM D5470  | 0.25              |
| Thermal impedence @50 psi °C-In2/W | ASTM D5470  | 0.20              |

## **Building the part number**

Example:  $\underline{GCS} - \underline{040} - \underline{NS} \underline{150150} - \underline{0.5} - \underline{XX}$ 1 2 3 4 5 6

1. GCS series

2. Thermal conductivity

3. Silicone or Non-Silicone

4. Dimensions (mm) 5. Thickness (mm)

6. Custom