



# TG4040-2K

## Thermally Conductive 2-Part Liquid Gap Filler

Version 1.130819



### Thermally Conductive 2-Part Liquid Gap Filler

TG4040-2K is a thermally conductive, two part, liquid gap filler which can be cured in place for optimum performance and ease of manufacture. TG4040-2K can be used to offer optimum thermal transfer for fragile components of where surface topography precludes the use of conventional materials. Once cured, TG4040-2K offers reliable thermal management and prevents many of the issues associated with stresses due to CTE mismatches.

### Features

- Smooth surface & low contact resistance
- Usable over a wide temperature range
- Electrical insulation
- High breakdown voltage
- Complies with UL standards

### Applications

- Automotive electronics
- Fibre optic telecommunications equipment
- Consumer electronics

### Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

| Property                         | TG4040-2K        | Unit              | Tolerance | Test Method |
|----------------------------------|------------------|-------------------|-----------|-------------|
| Colour                           | Blue             | -                 | -         | Visual      |
| Thermal Conductivity             | 3.5              | W/mK              | -         | ASTM D5470  |
| Volume Resistivity               | 10 <sup>12</sup> | Ohm-cm            | -         | ASTM D257   |
| Density                          | 3.0              | g/cm <sup>2</sup> | -         | ASTM D792   |
| Operating Temperature            | 20 to 30         | °C                | -         | -           |
| Working Temperature              | -50 to 200       | °C                | -         | -           |
| Working Temperature (short term) | 288              | °C                | -         | -           |
| Flame Rating                     | V-0              | -                 | -         | UL 94       |
| Hardness                         | 40               | Shore 00          | -         | ASTM D2240  |
| Viscosity                        | 200              | pas               | -         | ASTM D2196  |
| Pot Life @ 25°C                  | 60               | Minutes           | -         | -           |
| Cure Time @ 25°C                 | 90-180           | Minutes           | -         | -           |
| Cure Time @ 100°C                | 3                | Minutes           | -         | -           |
| Cure Time @ 150°C                | 1                | Minutes           | -         | -           |

### Reliability

| Thermal Impedance | Initial | 250 hr | 500 hr | 1000 hr |
|-------------------|---------|--------|--------|---------|
| 125°C Aging       | 0.17    | 0.19   | 0.18   | 0.18    |
| 85°C / 85% RH     | 0.17    | 0.19   | 0.18   | 0.19    |

### Storage

TG4040-2K has a shelf live of 12 months from the date of manufacture., as indicated by the lot number, when stored in the original, unopened container.

\* Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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