

THERM-A-GAP™ GEL 20

Highly Reliable Fully Cured Dispensable GEL



Customer Value Proposition

Parker Chomerics THERM-A-GAP GEL 20 is a moderate performance, one component, dispensable thermal interface material with 2.4 W/m-K thermal conductivity developed with high reliability for the automotive industry.

The material's heavy paste-like consistency enables controlled dispensing, applied in variable thicknesses up to 4mm to suit application needs. THERM-A-GAP GEL 20 requires low compressive force to deform under assembly pressure, subjecting components, solder joints and leads to minimal stresses.

It is formulated to accommodate today's high reliability requirements for thermal cycling & high temperature environments.

Contact Information

Parker Hannifin Corporation
Chomerics Division
77 Dragon Court
Woburn, MA 01801
phone 781 935 4850
fax 781 933 4318
chomailbox@parker.com

parker.com/chomerics



Product Features

- Thermal conductivity: 2.4 W/m-K
- Easily dispensed
- Low compression force
- No secondary cure required
- Excellent consistency and long term reliability
- Low oil bleeding
- Resists movement under vibration
- Superior Tackiness

Typical Applications

- Automotive electronic control units (ECUs)
- Converter & Inverter & OBC
- ADAS control Module
- Vehicle Infotainment
- Power Supplies & Semiconductors
- Memory & Power Modules
- Microprocessors / Graphics Processors
- Flat Panel Displays & Consumer Electronics



ENGINEERING YOUR SUCCESS.

THERM-A-GAP™ GEL 20 Product Information

| Typical Properties† | | GEL 20 | Test Method |
|---------------------|------------------------------------------------------------------------------|-------------------------|-------------------------|
| Physical | Color | Dark Blue | Visual |
| | Flow Rate, g/min - 30cc syringe with no tip, 0.100" orifice, 90psi (621 kPa) | 24 | Chomerics |
| | Specific Gravity | 2.85 | ASTM D792 |
| | Typical minimum bondline thickness, in(mm) | 0.004 (0.10) | Chomerics |
| Thermal | Thermal Conductivity, W/m-K | 2.4 | ASTM D5470 |
| | Heat Capacity, J/g-K | 1.25 | ASTM E1269 |
| | Coefficient of Thermal Expansion, ppm/K | (waiting for test data) | ASTM E831 |
| | Operating Temperature Range, °F (°C) | -67 to 392 (-55 to 200) | Chomerics |
| Electrical | Dielectric Strength, Vac/mil (Kvac/mm) | 200 (8.0) | ASTM D149 |
| | Volume Resistivity, ohm-cm | 10 ¹² | ASTM D257 |
| | Dielectric Constant @ 1,000 kHz at and at 0.01" (0.25mm) thick | 4 | ASTM D150 |
| | Dissipation Factor @ 1,000 kHz at and at 0.01" (0.25mm) thick | 0.003 | Chomerics |
| Regulatory | Flammability Rating (See UL File E140244 for Details) | V-0 | UL 94 |
| | RoHS Compliant | Yes | Chomerics Certification |
| | Outgassing, % TML (% CVCM) | 0.27 (0.06) | ASTM E595 |
| | Shelf Life, months from date of manufacture | 18 | Chomerics |
| | Storage Conditions, °F (°C) @ 50% Relative Humidity | 50 to 90 (10 to 32) | Chomerics |

† Typical properties: these are not to be construed as specifications.

| Part Number | Typical Standard Fill Volume (cc) | Standard Fill Mass | Packaging Description |
|------------------|-----------------------------------|--------------------|-----------------------------|
| 65-00-GEL20-0010 | 10 | 29g | 10cc manual syringe |
| 65-02-GEL20-0030 | 27 | 77g | 30cc EFD plastic cartridge |
| 65-02-GEL20-0180 | 150 | 428g | 180cc EFD plastic cartridge |
| 65-00-GEL20-0300 | 300 | 855g | 300cc aluminum cartridge |
| 65-1P-GEL20-3160 | 3160 | 9kg | 1 US gal. pail |
| 65-5P-GEL20-8620 | 8620 | 25kg | 5 US gal. pail |

parker.com/chomerics

© 2022 Parker Hannifin Corporation. All rights reserved.

CHODS1005 October 2022



ENGINEERING YOUR SUCCESS.