

Product Information Sheet

MATERIAL ID:
EPO-TEK® OE184
Date: 10/2006

Per:
Rev: III

Material Description:

A two component, high Tg, optically clear epoxy for packaging and assembly of fiber optics cables and components. It is suggested for termination of fibers into ferrules, or fabrication of waveguide devices. It is a faster curing alternative to EPO-TEK® 353ND. Complies with USP Class VI biocompatibility standards.

Number of Components:

Two

Mix Ratio by weight:

10:1

Cure Schedule (minimum)

150°C/1 Minute - 120°C/5 Minutes - 100°C/10 Minutes - 80°C/25 Minutes

Specific Gravity:

--- Part A: 1.20 Part B: 1.02

Pot Life:

< 1 Hour

Shelf Life:

One year at room temperature

NOTE: Container(s) should be kept closed when not in use. Filled systems should be stirred thoroughly before mixing and prior to use

MATERIAL CHARACTERISTICS: *To be used as a guide only, not as a specification. Data below is not guaranteed. Different batches, conditions and applications yield differing results; Cure condition: 150°C/1 hour*

* denotes test on lot acceptance basis

| PHYSICAL PROPERTIES: | | | |
|--|--------------------------------|---------------|--|
| *Color (before cure): | Part A: Clear/Colorless | Part B: Amber | |
| *Consistency: | Pourable liquid | | Die Shear @ 23°C: ≥ 10 Kg / 3,400 psi |
| *Viscosity (23°C): | | | Degradation Temp: 474 °C |
| @ 100 rpm | 3,000 - 4,000 cPs | | Weight Loss: |
| Thixotropic Index: | N/A | | @ 200°C: 0.07 % |
| *Glass Transition Temp: | ≥ 100 °C (Dynamic Cure | | @ 250°C: 0.14 % |
| 20—200°C /ISO 25 Min; Ramp -10—200°C @ 20°C/Min) | | | @ 300°C: 0.39 % |
| Coefficient of Thermal Expansion (CTE): | | | Operating Temp: |
| Below Tg: | 36 x 10 ⁻⁶ in/in°C | | Continuous: - 55°C to + 250°C |
| Above Tg: | 165 x 10 ⁻⁶ in/in°C | | Intermittent: - 55°C to + 350°C |
| Shore D Hardness: | 87 | | Storage Modulus @ 23°C: 232,435 psi |
| Lap Shear @ 23°C: | 1,644 psi | | *Particle Size: N/A |

| ELECTRICAL AND THERMAL PROPERTIES: | | | |
|---|-------------------------------|------------------------------------|-------|
| Thermal Conductivity: | N/A | Dielectric Constant (1KHz): | 3.45 |
| Volume Resistivity @ 23°C: | ≥ 7 x 10 ¹² Ohm-cm | Dissipation Factor (1KHz): | 0.007 |

| OPTICAL PROPERTIES @ 23°C: | | | |
|-----------------------------------|---------------------|------------------------------------|-----------------|
| Spectral Transmission: | 95 % @ 1550 nm | Refractive Index (uncured): | 1.5704 @ 589 nm |
| | >95 % @ 700-1400 nm | | |

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