

Technical Data Sheet EP-2009-6-H-117

B-Stageable Adhesive

Introduction:

EP-2009-6-H-117 is designed for use in laminate-based application. This material is ideal for sealing of glass / metal with various substrates in IC / LED/ Electronic application where bleed needs to be minimized.

Features

- Dispense by write
- Low moisture uptake
- Low warpage

| UNCURED PROPERTIES | | TEST DESCRIPTION | TEST METHOD |
|-------------------------------------|-----------------|--|----------------|
| Density | 1.25 g/cc | Pycnometer | FT-P001 |
| Appearance | black | | |
| Viscosity @ 25°C | 30000–35000 cps | Brookfield DV-Ⅲ/CP-51 @ 5rpm | FT-P006 |
| Thixotropic Index | 3.4 – 3.8 | Brookfield DV-Ⅲ/CP-51 | FT-P008 |
| @ 25°C | | Visc @ 0.5rpm/Visc @ 5rpm | |
| Grind | $<$ 20 μm | Grindmeter | FT-P025 |
| Work Life @ 25°℃ | 48 hours | 25% increase in visc. @ 5rpm | FT-P024 |
| Shelf Life @ -40°C to | -15 °C 6 months | | FT-P018 |
| CURE CONDITION | | TEST DESCRIPTION | TEST METHOD |
| B-stage Cure Condition | | 40 - 60 min @ 80 - 100 °C depending on the | |
| | | oven efficiency | |
| C-stage Cure Condition | | 90 - 120 min @170-175 °C (The higher | |
| | | temperature and the longer cure time, the | |
| | | higher Tg results) | |
| MECHANICAL PROPERTIES- POST CURE | | TEST DESCRIPTION | TEST METHOD |
| Die Shear Strength @ 2 | 5°C 12 Kg/die | 2×2mm Si die on Microscope Slide Glass | FT-M012 |



The tables shown above are typical values only. If you need to write a specification, please request our current Standard Release Specification.

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| PHYSIOCHEMICAL PROPERTIES- | | TEST DESCRIPTION | TEST |
|------------------------------------|-------------------------------------|------------------------------|---------|
| POST CURE | | | METHOD |
| Glass Transition Temperature 89 °C | | DMA 3 Point Bending Mode | FT-M014 |
| Coefficient of Thermal Expansion | | TMA Expansion Mode | FT-M016 |
| Below Tg | 47 ppm/°C | | |
| Above Tg | $140~\mathrm{ppm/^\circ}\mathrm{C}$ | | |
| Dynamic Tensile Modulus | | Dynamic Mechanical Thermal | FT-M019 |
| @ -60°C | 4500 MPa | Analysis using <1.5 mm thick | |
| | | Specimen | |
| @25°C | 2900 MPa | | |
| | | | |
| @150°C | 95 MPa | | |
| | | | |
| @250°C | 81 MPa | | |

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