

# **Technical Data Sheet**

## ЕР-2009-6-Н-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	$<\!20\mu m$	Grindmeter	FT-P025
Work Life @ 25°C	48 hours	25% increase in visc. @ 5rpm	FT-P024
Shelf Life @ $-40^{\circ}$ C to $-15^{\circ}$ C 6 months			FT-P018
CURE CONDITION		TEST DESCRIPTION	TEST
			METHOD
B-stage Cure Condition		$40$ - $60$ min @ $80$ - $100$ $^\circ\!C$ depending	
C-stage Cure Condition		on the	
		oven efficiency	
		$90 - 120 \text{ min } @170-175 \ ^{\circ}\text{C}$ (The	
		higher temperature and the longer cure	
		time, the higher Tg results)	

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- POST CURE		TEST DESCRIPTION	TEST METHOD
Hardness Shore D	85	85°C/60min + 175°C/90min	FT-M015
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 ppm/°C		
Dynamic Tensile Modulus		Dynamic Mechanical Thermal	FT-M019
<b>@</b> -60°C	4500 MPa	Analysis using <1.5 mm thick	
		Specimen	
@25°C	2900 MPa		
@150°C	95 MPa		
@250°C	81 MPa		
MECHANICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Die Shear Strength @ 25°C 12 Kg/die		2×2mm Si die on Microscope Slide Glass	FT-M012
Die Shear Strength @260°C 3 Kg/die		2×2mm Si die on Microscope Slide Glass	FT-M012

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