

CB 648 Screen Print SMT Epoxy

Description

CB 648 is a one-part red adhesive based on epoxy resins. It cures fast at high temperatures. It may be cured at 80°C or faster at 150°C. It has excellent adhesion to most printed circuit boards and electronic components. It has a long pot life and long shelf life even at room temperature of 25°C. The thixotropy has been adjusted to prevent sagging and minimal stringing. It has a relatively low viscosity for very high speed dispense from automated SMT dispensing machines.

Applications

1. SMT adhesive for bonding electronic components onto printed circuit boards
2. General bonding for many plastics, ceramics and metals

Guidelines for Use

1. Thaw the epoxy to room temperature (25°C) before use.
2. The epoxy may be screen-printed onto the PCB or dispensed by using a syringe.
3. Cure the epoxy by heating at 150°C for 90 seconds. Curing at lower temperature will require a longer time.
4. Wipe off any excess uncured adhesive with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue wetted with isopropanol.

Properties

Property	Test Method	Unit	Typical Value
Chemical type			Epoxy
Appearance	Pen 10		Red paste
Mix ratio, by weight			One component
Shelf life, -20°C	Pen 26	Month	12
Pot life, 25°C	Pen 26	Week	1
Viscosity(Brookfield CAP 2000)		Cps	227,000
Viscosity, Brookfield RVT, 25°C	ASTM D2393	cps	5,000,000
Thixotropy Index		Cps	2.3
Density		g/cm ²	1.336
Hardness		Shore D	84
CTE before Tg		Ppm/K	55
CTE after Tg		Ppm/K	165
Glass Transition Temperature		°C	101
Moisture Absorption		%	1.18
Water Absorption		%	0.38
Dielectric Breakdown		Volt/mm (µA)	3579(0.07)
Specific Gravity	Pen 14		1.35
Tensile strength	Pen	kgcm ⁻²	414
Shear strength	Pen	kgcm ⁻²	126
Water boil, wt gain, 1 hr	Pen 21	%	0.43
Volume resistivity, 25°C	ASTM D257	ohm.cm	6.6 x 10 ¹⁶
Tg, DSC, cured 150°C for 1 hr	Pen 19	°C	135

Recommended Cure

Schedule	Temp.	Cure Time
A	150 °C	90 sec
B	80 °C	2 hrs

Storage

Tightly close original container of unused product and store below -20°C. Storing at lower temperatures down to -40°C may prolong shelf life beyond 6 months. However it may take longer time to thaw the product.

Packaging

- 30 ml EFD syringe
- 30 ml IEI (Iwashita) syringe
- 300 ml Semco cartridge

Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

Contact Information

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