

## CB 643 SMT Epoxy

### Description

CB 643 is a one-part red adhesive based on epoxy resins. It has excellent adhesion to most printed circuit boards and electronic components. It cures fast at high temperatures. It may be cured at 80°C or faster at 150°C. 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.

### Applications

1. SMT adhesive for bonding electronic components onto printed circuit boards
2. General bonding for many plastics, ceramics and metals
3. Suitable for pin transfer and screen printing process.

### Guidelines for Use

1. Thaw the epoxy to room temperature (25°C) before use.
2. Dispense the epoxy 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	6
Pot life, 25°C	Pen 26	Week	1
Viscosity, CAP 2000+ viscometer, 25°C, Cap-06@100rpm	Pen 44	cps	30,000
Thixotropic index, 20rpm/200rpm	Pen 37		2.0
Tensile strength	Pen 41	kgcm <sup>-2</sup>	483
Shear strength	Pen 36	kgcm <sup>-2</sup>	135
Water boil, wt gain, 1 hr	Pen 21	%	0.43
Volume resistivity, 25°C	ASTM D257	ohm.cm	6.6 x 10 <sup>16</sup>
Tg, DSC, cured 150°C for 1 hr	Pen 19	°C	120
Dot profile	Pen 25		Peak

The values above are tested based on batch to batch basis. These values are not use as a basis for preparing specifications.

### Recommended Cure

Schedule	Temp.	Cure Time
A	150 °C	90sec
B	115 °C	300sec

### 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

Penchem Technologies Sdn Bhd  
(767120-A), 1015, Jalan Perindustrian Bukit Minyak 7, 14100 Penang, Malaysia  
T: +604-501 5976, 77, 78  
F: +604-501 5979  
E: [enquiry@penchem.com](mailto:enquiry@penchem.com)  
W: [www.penchem.com](http://www.penchem.com)

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