

# GL 168

## Electronics Epoxy

### Description

GL 168 is a one-part white adhesive based on epoxy resins. It cures fast at elevated temperatures and has excellent adhesion to most pc boards and electronic components. It may be cured at 100°C or faster at 175°C. It has no sagging. It has a stable pot life and long shelf life even at room temperature of 25°C. It has been designed especially for bonding electronic components. It has relatively low viscosity for faster dispense from syringes. It has high thixotropic which can control the flow of the adhesive.

### Applications

1. Epoxy adhesive for attaching to ceramic, metals, and most plastics in electronics.

### Guidelines for Use

1. Thaw the epoxy to room temperature (25°C) before use.
2. Dispense the epoxy by using a syringe.
3. Wipe off any excess uncured adhesive with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue dabbed with isopropanol.alcohol (IPA).
4. Cure the epoxy by heating at 100°C for 120 minutes in a convection oven. Curing at lower temperature will require a longer time.

### Properties

Property	Test Method	Unit	Typical Value
Chemical type			Epoxy
Appearance	Pen 10		White paste
Mix ratio, by weight			One component
Shelf life, -20°C	Pen 26	Month	6
Pot life, 25°C	Pen 57	Week	1
Viscosity, CAP 2000+ viscometer, 25°C Cap-06@100rpm	Pen 44	cps	45,085
Thixotropic Index	Pen 37	-	1.9
Hardness, cured 100°C for 2 hr	Pen 29	Shore D	90
Shear Strength	Pen 36	kgcm <sup>-2</sup>	545
Water boil, wt gain, 100°C/1hr	Pen 21	%	<1.0
Tg, DSC, cured 100°C for 2 hr	Pen 19	°C	131
Specific gravity	Pen 14	g/cm3	1.18
CTE, alpha-1	-	mm <sup>-1</sup> °C <sup>-1</sup>	6.8 x 10 <sup>-5</sup>
, alpha-2	-	mm <sup>-1</sup> °C <sup>-1</sup>	1.9 x 10 <sup>-4</sup>
Ionic Content, Cl	-	ppm	<50
, K	-	ppm	< 50
, Na	-	ppm	< 20

### Recommended Cure

T(°C)	Gel time	Cure time
100	12 min	2 hours
150	2 min	30 min

### Storage

Tightly close original container of unused product. 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

- 5 ml EFD syringe
- 10 ml EFD syringe
- 30 ml EFD syringe

### 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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