

# Epoxy Resin

## EGPE500GF

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### Description

EGPE500GF is a general purpose encapsulation compound. The flame retardant technology used is a 'clean' type leading to relatively low toxicity fumes and low smoke emission.

### Features

- General purpose black epoxy resin
- Cost effective
- Max operating temperature 120°C
- Flame retardant

### Technical Properties

#### Typical Properties:

#### Liquid Properties:

Base Material	Epoxy
Density Part A – Resin	1.82g/ml
Density Part B – Hardener	0.92g/ml
Part A Viscosity	1,50,000mPa @ 23°C
Part B Viscosity	200mPa @ 23°C
Mixed System Viscosity	9,000mPa @ 23°C
Mix Ratio (Weight)	11:1
Mix Ratio (Volume)	5.36:1
Usable Life(23°C)	60 mins
Gel Time (23°C)	150 mins
Cure Time (23°C)	24 hours
Cure Time (60°C)	2 hours
Colour Part A – Resin	Black
Colour Part B – Hardener	Straw
Storage Conditions	Dry Conditions: Above 15°C, Below 30°C
Shelf Life	18 months
Shrinkage Life	< 1%

#### Cured System:

Thermal Conductivity	0.35W/mK
Cured Density	1.68g/ml
Temperature Range	-140°C to +120°C
Dielectric Strength	10kV/mm
Volume Resistivity	10 <sup>14</sup> ohm-cm
Shore Hardness	D85
Colour (Mixed System)	Black
Flame Retardency	Yes
Tensile Strength	50MPa

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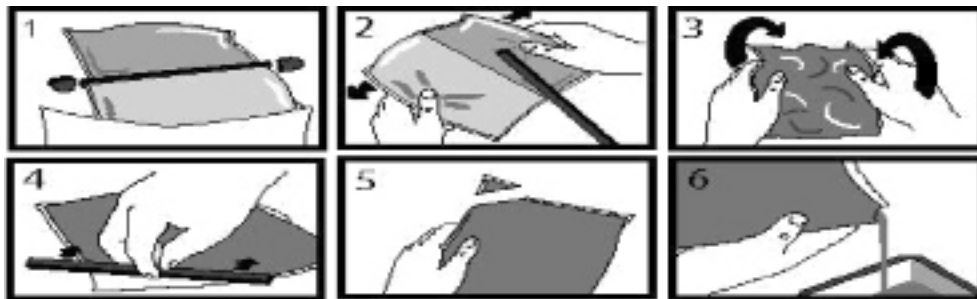
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### Mixing Procedures

#### Resin Packs:

When in Resin pack form, the resin and hardener are mixed by removing the clip and moving the contents around inside the pack until thoroughly mixed. To remove the clip, remove both end caps, grip each end of the pack and pull apart gently. By using the removed clip, take special care to push unmixed material from the corners of the pack. Mixing normally takes from two to four minutes depending on the skill of the operator and the size of the pack. Both the resin and hardener are evacuated prior to packing so the system is ready for use immediately after mixing. The corner may be cut from the pack so that it may be used as a simple dispenser.



### Additional Information

#### Curing Schedule

Do not heat cure large volumes immediately. Allow these to gel at room temperature and post-cure at high temperature if required (refer to liquid properties for details). Small volumes (250ml) may be heat cured immediately.

#### Storage

When storing under very cold conditions, the hardener may crystallize. If this occurs, simply warm (40°C) the container gently until all crystals have re-melted.

### Part Number Table

Description	Part Number
Resin General Purpose Epoxy 500g	PPC234

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