

## 330-GLUE3: Electrically Conductive Two-component adhesive

330-GLUE-3 is a solvent-free, hot-curing 2-part IPN adhesive. Based on epoxy resins with high media and temperature resistance, and filled with silver, the glue is suitable for high-temperature electrically conductive bonding of metals, glass, and ceramics. It also shows good adhesive strength to polyester.

- Temperature resistant to 200 °C
- Electrically Conductive
- Very resistant to various chemicals
- Good bonds to Aluminium, Stainless Steel, Polyester

Property	Value
Colour	A: Silver, opaque B: Yellow
Consistency (23°C)	A: Medium viscosity paste B: Liquid
Viscosity	182 Pas @ 50°C (mixed)
Pot Life (23°C / 30 g)	12 h
Pot Life (60°C / 30 g)	60 min
Shelf life (2-35°C)	0.5 year
Curing Peak Temperature	130°C
Mixing Ratio	A:B = 10:1 by weight

### Surface Pretreatment

330-GLUE-3 should be preferably used on carefully degreased and mechanically abraded surfaces, while chemical etching leads to best results. It is recommended to follow specific directions for surface pretreatments of various materials.

### Application of Adhesive

Prepare 1 part of component B and mix carefully with 10 parts of component A. In order to decrease viscosity the mixture can be heated to 60 °C at the cost of shortened pot life. After mixing the adhesive can be applied to the prepared bonding surface using a spatula or similar tool. Finally the adhesive must be cured at elevated temperatures.

### Cleaning of Equipment

Spare adhesive can be removed from tools with Acetone or Ethyl-Acetate.

### Curing

Curing should be conducted in two temperature steps at 80 and 130 °C. The duration of each step mainly depends on how quick the necessary temperature can be reached in the adhesive layer. Small and thin substrates with good thermal conductivity can be cured quickly. Larger structures and substrates with low thermal conductivity should be cured for longer periods.

As a starting point a curing schedule of 1 h at 80°C + 2 h at 130°C should be tested. Suitable tests under real-life conditions should be conducted by the user.

## Typical Cured Properties

Property	Method / Parameters	Value
Colour	Visual	Silver
5% Decomposition Temperature	TGA 10 K/min under N <sub>2</sub> (without filler), Cure: 1 h 80°C + 2h 130°C + 1h 180°C	356°C
Glass Transition Temperature	DSC 10k/min	100°C
Electrical Volume Resistance		4.6 x 10 <sup>-4</sup> Ohm cm

### Lap Shear Strength DIN EN 1465

Substrate: Aluminium AlCuMg1  
 Pretreatment: Etched + Silane Primer A174, Curing: 5 min 150°C  
 Shear Strength: 10 N/mm<sup>2</sup> at Test Temp. 23°C

### Pack Sizes

Packs are normally 20g, but larger sizes are available on request.

### Storage

330-GLUE-3 may be stored in its original container between 4 and 35°C (do not freeze). Avoid direct sunlight. Shelf life is 6 months. Expiry date is indicated on the label.

### Disposal

Spare amounts of the adhesive should be cured and then disposed of according to local regulations.

### Handling Precautions

When using the adhesive wear protective glasses and gloves. Refer to further instructions in the Material Safety Data Sheet.

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