

500°F ELECTRICALLY CONDUCTIVE ADHESIVE

For High Power Applications

500°F - DURALCO™ 120

Resistance is 0.00008 ohm-cm

Just Mix and Apply

Cures at Room Temperature

Ideal for All Applications

Duralco 120 Epoxy Adhesive Forms Super Electrically Conductive Bonds for continuous use from - 50 to + 500°F.

This epoxy contains over 70% Ultra Fine, Active Silver providing the ultimate in electrical conductivity.

Resistance measurements of 0.00008 ohm-cm has been reported in many independent tests.

Duralco 120 has excellent adhesion to copper, steel, stainless, aluminum, lead, glass, ceramics, plastics and dissimilar materials.

Cures at room temperature or mild heat to offer superior resistance to moisture, most chemicals and solvents.

Duralco 120 is commonly used in place of solder for electrically conductive bonds, bonding heat sensitive components, etc.

Using Duralco 120 instead of solder avoids exposing parts to soldering temperatures, flux contamination in addition to simplifying lab or production processing of parts.

Applications Include: bonding circuits, solder replacement, bonding semi-conductors, EMI shielding, thermistors, wire tacking, heating elements, assembling electronics, etc.

Users Report:

- Duralco 120 was used for an application at 200°C for over 12 months with no degradation in electrical conductivity.
- Duralco 120 successfully bonded bus bars and carried a current of 2400 amps for a short term test.
- Duralco 120 bonds sputtering targets to copper based plates and provides 100°C continuous service.

Duralco 120 is the ideal choice for high power, high temperature, electronic or industrial application requiring high electrical conductivity.

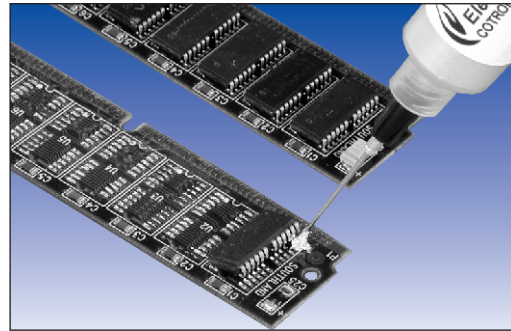
Availability:

| Cat. No. | Description | Temp. |
|--------------------|-----------------|-------|
| Duralco 120-1..... | 2 oz. Kit | 500°F |

Pre-Measured Kits

Each Unit Contains: 1 jar of resin, 1 syringe of hardener and 1 mixing stick. (See page 19 for details)

| | |
|----------------|---------------------|
| EE 120-2..... | 3 - 10gm units/box |
| EE 120-3..... | 6 - 10gm units/box |
| EE 120-10..... | 10 - 10gm units/box |



**Duralco 120 in
A Surface Mount Application**



**Duralco 120 Bonds
Leads to a Instrument Assembly**

Physical Properties

| Max. Use Temp. | 500°F |
|---|-----------------------|
| Volume Resistivity (ohm-cm) | 0.00008 |
| Base | Ultra Fine Silver |
| Color | Silver |
| Consistency | Smooth Paste |
| Components | 2 |
| Density (gms/ 0.9 cc) | 3.80 |
| Mixed Viscosity (cps at 100°F) | Smooth Fine Paste |
| Hardness (Shore D) | 70 |
| Die Shear strength | 31.8N/mm ² |
| Lap Shear Strength (psi) | 1500 |
| Flexural Strength (psi) | 1150 |
| Compressive Strength (psi) | 6000 |
| Thermal Expansion (10 ⁻⁵ /°C) | 4.10 |
| Thermal Cond. (BTU-in/Hr. Ft ² °F) | 50 |
| Mix Ratio | 100 to 3.4 |
| Cure Time Hr. @ R. T. | 16 |
| Hr. @ 100°F | 4 |
| Hr. @ 150°F | 2 |
| Min. @ 200°F | 10 |
| Min. @ 250°F | 7 |

