# 500°F ROOM TEMP CURING, LOW VISCOSITY EPOXY

**Bonds, Coats, Seals and Protects** 

## 500°F - DURALCO™ 4461

Ultra Thin Bond Lines
Seals Porous Materials

Impregnates Fine Structures

Forms Protective Coatings

Duralco Low Viscosity Adhesives are formulated with Cotronics' unique polymer system to provide the ultimate in high temperature chemical, electrical and moisture resistance.

They are user friendly, 100% solid formulations.

No volatiles. No VOC's. No harsh odors.

Duralco $^{\text{m}}$  4461 is a free flowing, liquid adhesive that is ideal for forming ultra thin bond lines, impregnating, coating and encapsulating applications.

Has excellent adhesion to metals, plastics, ceramics, glass, etc. Cures at room temperature to provide chemical, solvent and corrosion resistance in any high temp. application.

Can be used up to 500°F as a protective coating for coils, filament windings, electronics, etc.

It is an ideal choice for high temperature applications in electronics, optics, instrumentation, etc.

#### **Users Report:**

Fiber Optic Cables consisting of 3,000 glass strands were encapsulated, and bonded with 4461 in a 1/8" stainless steel tube. The low viscosity of 4461 enabled full penetration in and around the fiber stands.

 $4461\ Bonds$  optical components and protects them from moisture absorption and transmission.

4461 Pots a transformer for high temperature service.

### Availability:

Cat. No.	Description	Temp.
Duralco 4461-1	Pint Kit	500 °F
<b>Duralco 4461-2</b>	Gallon Kit	500 °F
<b>Duralco 4461IP-1</b>	Pint Kit	500 °F
Duralco 4461IP-2	Gallon Kit	500 °F

### 4461SS, New, Slow Setting Version

Ideal for large volume potting and casting applications.

Duralco 4461SS-1......Pint Trial Kit................500 °F

Duralco 4461SS-2......Gallon 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)

EE4461-10	.10	Epox-Eez	10gm	units/box
EE4461-25	.10	Epox-Eez	25gm	units/box
EE4461IP-10	.10	Epox-Eez	10gm	units/box
EE4461IP-25	.10	Epox-Eez	25gm	units



4461 Penetrates and Encapsulates
A Semi-Conductor Device



4461 Bonds an Optical Component



4461 Potting a Transformer for High Temp. Use

for might temp. Use						
Duralco™	4461	4461IP				
Maximum Temperature	500°F	500°F				
Components (Color)	2-Amber	2-Amber				
Mixed Density (gm/cc)	1.1	1.1				
Mixed Viscosity (cps)	3,600	4,800				
Hardness (Shore D)	90	90				
Tensile Strength (psi)	9,500	10,350				
Thermal Conductivity (BTU-in/Hr. Ft2°F)	FÈÏ	FÈÏ				
Thermal Expansion (10 <sup>-5</sup> /°C)	12.4	12.4				
Dielectric Strength (volts/mil.)	450	425				
Volume Resistivity (ohm-cm)	10 <sup>13</sup>	10 <sup>13</sup>				
Heat Distortion (°C)	210	210				
Elongation (%)	5	5				
Thermal Stability (% 1000/hrs. @ 200°C)	0.2	0.2				
Shrinkage (% max.)	0.8	0.8				
Moisture Absorption (% 30 Days)	0.15	0.15				
Mix Ratio (R/H)	100:17	100:25				
Cure (Hrs. @ R.T.)	16-24*	16-24*				
Optimum properties post cure Hrs. @ 250°F and Hrs. @ 350°F	5 1	1				

\* Cures can be accelerated with mild heat