

# 600°F ULTRA TEMP. EPOXIES

## Bonds, Repairs, Pots, Seals and Protects

### 600°F - DURALCO™ 4700

#### The Ultimate in High Temperature Epoxy Technology

Duralco 4700's unique properties stem from Cotronics' cross linked, inorganic - organic polymer system which, upon curing, forms an exceptionally durable epoxy for use to 600°F.

User friendly. No volatiles. No solvents. No out gassing. Simply mix the liquid resin and liquid hardener and follow with a heat cure at 250°F (minimum).

Duralco 4700 has excellent adhesion to metals, glass, ceramics, most plastics, etc.

It is a superior adhesive that has high electrical resistance, low moisture absorption, high temperature stability, high bond strength, low shrinkage and excellent chemical, solvent and radiation resistance.

#### Users Report:

4700 seals and protects electrical feed thru against high heat and moisture.

4700 successfully repaired cracks in pipes carrying hot oil at 250°C and at 1000 psi.

4700 seals thermocouples, electrical heaters, cables, etc.

4700 installs thermocouples, strain gauges and flow measuring instruments, etc.

Duralco 4700 is ideal for sealing electrical connections and is commonly used for high performance bonding, potting and repairing applications in electrical, electronic, automotive, aerospace, nuclear, chemical, production and laboratory applications.

### 650°F - DURALCO™ 4703 Adhesive and Tooling Compound

Duralco 4703 is a composite of Cotronics' unique high temperature resins, metallic and ceramic particles.

It offers the ultimate stability and strength in high temperature environments.

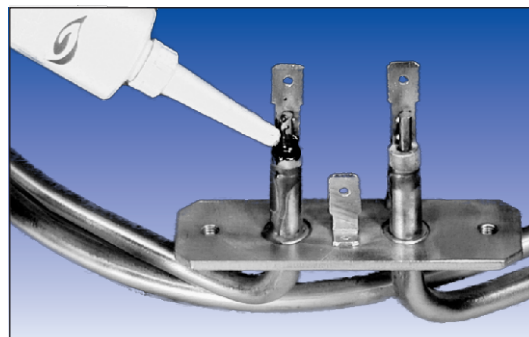
Duralco 4703 has excellent resistance to most chemicals, solvents, acids and bases and is easily machined to close tolerances.

Applications include repairing and rebuilding worn or cracked composites, dies, fixtures, jigs, etc.

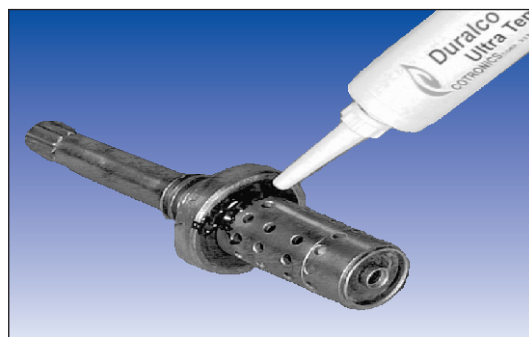
#### Users Report:

- Bond strengths over 3,000 psi are obtained at room temperature and 1,200 psi at 500°F.
- 4703 retains over 85% of its tensile bond strength after 1,000 hours of service at 500°F.
- 4703 seals high performance thermocouples for use in high temperature corrosive environments.

Duralco 4703 is ideal for use as a high temperature adhesive for bonding, potting, injection molding, matched dies, vacuum forming dies, extrusion dies and tooling.



4700 Seals Electrical Feed Thru for a High Temperature Heater



4703 Repairs a Valve Seal

Duralco™	4700	4703
Max Intermittent Temp.	600°F	650°F
Components - Color	2-Black	2-Black
Mixed Density (gm/cc)	1.7	1.9
Mixed Viscosity (cps)	20,500	46,000
Hardness (Shore D)	94	95
Tensile Strength (psi)	11,100	11,800
Thermal Cond. (BTU-in/Hr. Ft <sup>2</sup> -F)	13	18
Thermal Expansion (10 <sup>-5</sup> /°C)	3.40	3.90
Dielectric Strength (volts/mil)	550	450
Volume Resistivity (ohm-cm)	10 <sup>14</sup>	10 <sup>10</sup>
Heat Distortion (°C)	300	320
Elongation (%)	2	2
Thermal Stability (% 1000 hr @ 200°C)	0.10	0.02
Shrinkage (% max.)	0.20	0.10
Moisture Absorption (% 30 Days)	0.02	0.15
Mix Ratio (R/H)	100/28	100/22
Cure (Hr. @ 250°F)	4	4 - 6

#### Availability:

Cat. No.	Description	Temp.
Duralco 4700-1.....	Pint Trial Kit .....	600°F
Duralco 4700-2.....	Gallon Kit .....	600°F
Duralco 4703-1.....	Pint Trial Kit .....	650°F
Duralco 4703-2.....	Gallon Kit .....	650°F

Pre Measured Kits, Bulk Quantities on Request