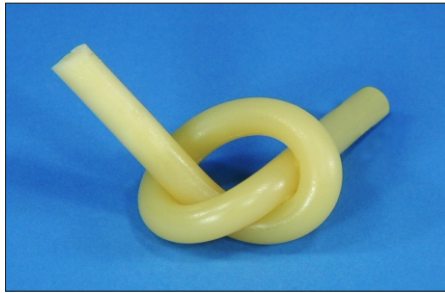
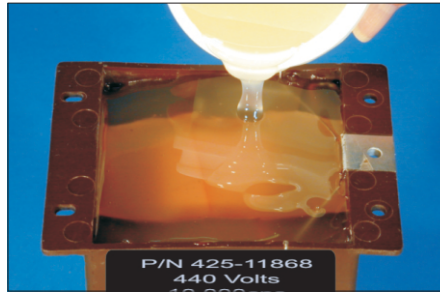


# Super Flexible, 450°F Epoxy

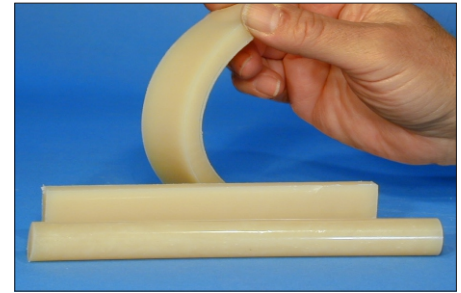
## Is So Flexible You Can Tie it in a Knot



**Epoxy So Flexible  
You Can Tie it in a Knot**



**Potting a High Temp. Transformer for  
Severe Thermal Cycling Resistance**



**Super Flexibility Ideal for Stress Free  
Bonding and Potting**

### Duralco 4538

Now, unlike ever before, there is a solution for applications requiring the ultimate in thermal shock and vibration resistance, sound absorption and excellent adhesion to dissimilar substrates.

This completely variable system can be tailored to meet any application requirement just by varying the mix ratio of resin to hardener resulting in the exact degree of flexibility required for any application.

Easy to use. Just choose the mix ratio desired, dispense resin and hardener, mix to a uniform color and apply.

Duralco 4538 has excellent adhesion to most plastics, metals, ceramics, glass, rubber and even treated Teflon™ and cures at room temperature without any objectionable odors.

Can be used from -100°F to +450°F.

Duralco 4538 has outstanding chemical resistance, high bond and peel strength, thermal shock and mechanical resistance and will not soften or gum up at high temperatures.

#### Users Report Duralco 4538:

**Bonds:** Zytel™ 101, Victrex™, Poly-Phenylsulfone, Nylon, Poly-Carbonates, Phenolics and other difficult materials. Successfully bonded a Teflon™ housing to a ceramic bushing, and ceramic magnets to a plastics holder.

**Thermal Shock Resistance:** Withstands repeated thermal cycling from -100°F to +300°F.

**Seals:** Bonded and sealed a 4 inch diameter glass sight port to a brass housing for use from -100°F to +300°F.

**Encapsulates:** Stress free potting of delicate electronic assemblies for severe thermal shock environments.

**High Peel Strength:** Adheres to Teflon™ (treated) and other hard to bond plastics.

**Duralco 4538 is The Most Variable, High Temperature, Adhesive System Available and is The Ideal Choice for Applications Requiring Stress Free Bonding and Flexible Encapsulations.**

### Adjusting The Flexibility

1. Pick the degree of flexibility desired.
2. Select the resin to hardener ratio from the table.

Use formulation

B for most applications.

C or D for severe thermal shock, vibration bonding of dissimilar materials

A for applications where a more rigid is required.

Formulation	A	B	C	D
Flexibility	Rigid	Flexible	Soft	Softest
Resin (by wt.)	100	100	100	100
Hardener (by wt.)	80	120	200	300
Physical Properties	A	B	C	D
Hardness (Shore A)	100	60	40	30
Tensile Strength (psi)	8000	6000	2500	1200
Elongation %	4	8	20	80
Tg °F	53.8	48.2	41.4	32.9

Duralco™ Maximum Temp	Units °F	4538 450
Components	Color	2-Tan
Mixed Viscosity	cps	17,200
Cure	Hr. @ R.T.	16-24
	Min. @ 250°F	60
Hardness Variable	Shore 'A'	60-80
Tensile Strength	psi	6,000
Thermal Conductivity*	BTU in/°F hr ft²	7
Thermal Expansion	10 <sup>-5</sup> /°C	N/A
Dielectric Strength	volts/mil.	450
Volume Resistivity	ohm-cm	10 <sup>14</sup>
Elongation	%	12-100
Thermal Stability	% 1000 hr @ 200°C	0.5
Shrinkage	% max.	0.8
Moisture Absorption	30 Days %	0.5
Mix Ratio	R / H	100/120

