

# **BONDiT™ B-481 1**

## **Adhesive, Sealant & Coating System**

### **High chemical resistance**

A potting compound and coating for harsh environments. Superior chemical resistance for moisture and oil, acids and bases in continuous full submersion and autoclave (500 cycles). Highly stability to 200°C continuous. Superior for electrical potting applications.

### **Bonds dissimilar materials**

An adhesive for bonding dissimilar materials such as plastics including UHMW, HDPE, PP, PET, PEEK, PPS, PBT, Acetal, ETFE, PVC, PVCF, PVDF, ABS, ECTFE, polyamide, polyimide rubber and urethane on metal, glass, composites, cement, and wood.

### **Easy use**

Two part, primerless, semi-rigid epoxy, high tensile strength, ambient and thermal cure. Available in hand-held and pneumatic gun actuated cartridges, quarts, gallons and drums.

### **Harsh environments**

Marine,  
Civil Engineering,  
Downhole oil,  
Underwater,  
Electronic,  
Mining,  
Medical,  
Automotive.





## BONDIT™ B-4811

### Description

**BONDIT™** B-4811 is a two-part, state-of-the-art 100% solids, room-temperature curing rigid epoxy resin system, especially designed for potting, coating, and adhesive applications for electronics and electrical assemblies, environmental sealing, coating for corrosion resistance, bonding engineering plastics and elastomers to various substrates.

B-4811 handles very harsh environments easily with outstanding effectiveness against moisture, salt water, acids, alkalies, oils, corrosive gases and detergents. B-4811 has high thermal stability, readily handling 200°C continuous and is rated for down hole oil and deepsea applications. B-4811 offers superior corrosion resistance. Likewise mechanical vibration, shock and impact are easily absorbed by B-4811 while protecting surfaces, bonded assemblies and encapsulated sensitive electronics. B-4811 is suitable for at least 500 cycles of autoclaving in medical applications.

This product used in conjunction with **BONDIT™** A-3 affords exceptional corrosion protection for metal surfaces, especially in cathodic / anodic environments. **BONDIT™** A-3/B-4811 to metal adhesion resists pH 11.0 levels at elevated temperatures of 95°C.

With excellent dielectric properties **BONDIT™** B-4811 may be used as an electrical encapsulant, such as for back fill of electrical connectors and power components. It may then overmolded with urethanes, high temperature and pressure elastomeric molding, and thermoplastics molding.

### Typical Properties

Property	B-4811
Color	White
Viscosity	~10,000 cps @ 25°C
Denisty	1.17 g/cm <sup>3</sup>
Moisture absorption	<1% [24hr Boiling DI water]
Durometer	84 Shore D, ASTM 2240
Voltage withstand	>600 VDC/.001" with .004" minimum
Insulation resistance	>3 x 10 <sup>12</sup> ohm/.004" @ 1000VDC, 25°C 62% RH 2 x 10 <sup>11</sup> ohm/.004" @ 2500VDC, 25°C 62% RH

### Mixing, Curing, and Storage

A wide range of curing regimes may be employed: ambient set in 6 hours, tack free in 12 hours, and 95% cure in 24 hours; cure at 150°F—tack free in 2 hours, 98% in 4 hours; or 3 hours full cure at 200°F with no ambient incubation time.

Mix part A with part B, 2:1 ratio by volume or weight. Degassing is optional. Pot life is typically 40 minutes, at ambient temperature. Surface prep by abrading or grit blasting substrates with #100 AlOx followed by degrease and/or alcohol wipe.

The usable shelf life of unopened containers of **BONDIT™** B-4811 resin is one year stored in cool, dry place. Containers should be kept tightly closed.