RELTEK

Adhesives and Coatings for Harsh Environments

# Cable, Connector, Transducer Sealing with BONDiT™ Products

## Primer, Encapsulant, Potting, Sealant and Adhesive

A breakthrough technology that primes, encapsulates and truly waterblocks electrical and fiber optic cables, connectors, feed-throughs, splices and transducers. Even waterblocks flooded cables. Bonds to metal, glass, ceramic, rubber, urethane, thermoset plastics and thermoplastics. Seals all materials of modern cable, connector and transducer designs.

### High Performance

High resistance to oil, acids and caustic chemicals. High resistance to cathodic and anodic corrosion attack. Twenty year life in deep sea submergence to 17,000 psi. Operational temperaturesup to 200°C for downhole applications. High dielectric, low permeation, thermal shock resistant.

### Designed for Harsh Environments:

Marine
Industrial
Downhole Oil
Underwater
Mining
Automotive
Military

### Description

The BONDiTT[M] A-3 / B-4811 priming, potting and sealing system is a breakthrough technology for the cable, connector and transducer industry. This new single system technology produces a long life cable termination with waterblocked conductors as a primary seal, and a secondary seal boot that is highly resistant to cathodic attack. It allows for a much wider selection of materials, in both connectors and cable / wire insulation. It provides flexibility in termination design. A damaged cable all the way to a conductor will not flood the connector, splice or transducer. and this is achieved cost effectively with wa single system that is very tolerant to ship-board and land operations. It works easily with existing production processes. Applications include cable / connector terminations, fiber optic feed-throughs, splices and transducers.

Field performance and laboratory tests demonstrate high reliability. U.S. Navy testing by an independent laboratory for cathodic protection demonstrated no failures in seven equivalent years. RELTEK tests show expected life of fifteen years or better for continuous subsea deployment in cathodic environments. Tests by a major defense contractor qualified the BONDiT™ system for twenty year life in full ocean submergence. Naval deep sea test range deployments have stopped failures typically occurring in three to eighteen months, with no failures to date in over four years of deployment. At-sea field repair of high and low voltage flooded cables on off-shore oil platform followed by immediate deep sea deployment to 1,250 meters, demonstrates high reliability and speed of field application on-board ship. Tranducers are protected from moisture intrustion and damage by cathodic attack by the low moisture permeation BONDiT™ system. Application is easy with low HAZMAT impact.

The BONDiT™ system has been pressure cycle tested to 10,000 psi in ASTM 3 oil at 204°C (400°F) and hydro-pressure cycle tested to 17,000 psi at 21°C (70°F).

Tested to mil spec M24217.

Thermal shock in air 10 cycles -38°C to 154°C (-36°F to 310°F); submerged in water 40 cycles 21°C to 95°C (70°F to 203°F) and 210 cycles 6°C to 66°C (42°F to 150°F).

Tested to pH 12.0 at 95°C (203°F).

Polymers cohesively bonded to the BONDiT™ system retain adhesion after hundreds of hours of Accellerated Life Testing in 95°C (203°F) seawater.

RELTEK LLC
2345 CIRCADIAN WAY
SANTA ROSA, CA 95407
www.reltekllc.com
(707) 284-8808