# **BIO-FIX**<sup>TM</sup> **911**

"5-MINUTE" REPAIRS
WITH MOISTURE
TOLERANCE



### PRODUCT DATA SHEET

BIO-FIX<sup>TM</sup> 911 is based on a unique blend of liquid epoxy polymer and proprietary curing agents, which is able to displace water from wet surfaces in order to make a permanent bond. The formulation is solvent-free to ensure safety and maximum technical performance. Kevlar<sup>TM\*</sup> fibers are incorporated for reinforcement and viscosity management to assure reliable application even under adverse conditions.

**BIO-FIX**<sup>TM</sup> **911** is supplied in a standard white base, which is mixed with an equal volume of black curing agent to yield approximately US Navy Haze Gray when thoroughly mixed. The formula is uniquely field-friendly using advanced low toxicity ingredients and can be shipped "Non-Regulated" by USDOT, IATA and IMO.

\*Kevlar is a trademark of the E.I. DuPont de Nemours Co.

# **RECOMMENDED USES**

FIBERGLASS REPAIRS: Use with fiberglass tape for patching and reinforcing.

**REPAIR COMPOUND:** Patching, leak sealing etc. under all conditions.

**ADHESIVE:** Excellent all purpose adhesive for use above and below water

## **TECHNICAL INFORMATION**

VEHICLE TYPE

VEHICLE TYPE	. Epoxy/proprietary
PIGMENTATION	Color/Inert/fibrous reinforcement
COLORS	. Standard US Navy Haze Gray
FINISH	Slight texture
THINNER	Not normally required
CLEANER	MEK or lacquer thinner
MIXING RATIO	. 1.0/1.0 v/v
INDUCTION TIME	Not required
POT LIFE	Approx. 3' / 77°F
FLASH POINT	Over 200°F
SOLIDS BY VOLUME	100%
SPREADING RATE/GAL	1604 mil/sq. ft./gal, 53.5 sq. ft./gal @ 30 mils
DRY TIME, (Dust free)	5 mins. at 77°F
DRY TIME, (Service)	5 – 10 mins. Light duty, full cure in about 12 hours
APPLICATION METHOD	Spatula
STORAGE CONDITIONS	Normal, Freezing OK
VOC	Essentially zero

### **APPLICATION NOTES**

**INITIAL PREPARATION:** Before beginning to mix the BIO- $FIX^{TM}$  911 components make a mental "run-through" of the job and prepare as much as possible beforehand. A pot life of 3 minutes gives ample time to take care of most situations but time quickly runs out if tools have to be found or valves turned off during a job.

**SURFACE PREPARATION:** Scrape or remove all loose contamination around the immediate repair site. Abrade the area using coarse abrasive paper or a mechanical grinder to provide a firm anchor for the repair material.

MIXING PROCEDURE: BIO-FIX<sup>TM</sup> 911 is supplied in equal volumes of white epoxy base and black curing agent. Remove equal quantities of base and curing agent from their cans and place them side-by-side on a surface of plastic, fiberboard etc. Mixing is easily accomplished by folding the components into each other using a spatula. Once mixing begins there will be about 3 minutes of working time available at 80°F, mixing will consume not more than 1 minute of this time. When mixing is complete the product will be a uniform Haze Gray color with no streaks of unmixed white or black components. Pot life will be extended underwater by immediately immersing the mixed materials.

### **APPLICATION:**

- 1) UNDERWATER: Take the mixed *BIO-FIX*<sup>TM</sup> *911* underwater in a can or bucket, it will free up a hand to have a hook on a belt to hold the can during application especially if visibility is poor and a lantern has to be carried. Applicators such as broad putty knives or plastic straight-edged glue spreaders work well on most surfaces. Painters' mitts work well on small diameter tubular sections such as risers. *BIO-FIX*<sup>TM</sup> *911* is resistant to the effects of wave application during curing and will be found to be easier to apply than traditional "splash-zone" compositions and much less messy than lower viscosity underwater "paints". *BIO-FIX*<sup>TM</sup> *911* has a strong tendency to stick to underwater surfaces and expensive equipment should be protected using plastic suits or sacks to cover exposed surfaces. If fiberglass tape is to be wrapped into the repair it is recommended to saturate the tape then wrap it tightly around circular section members such as pipes with a 1/2" minimum overlap at the edge. Several thicknesses of fiberglass are recommended for strong repairs, smooth excess resin at surface to seal the repair.
- 2) ABOVE WATER: Use as a regular adhesive by mixing the quantity desired and applying to clean surfaces until set in 4 5 minutes. When used with glass fiber tape for leak sealing it is recommended to saturate the tape by "buttering" mixed *BIO-FIX*<sup>TM</sup> *911* onto one side using a spreader or spatula. Leave a couple of inches of tape uncoated at the free end. Apply the tape to the repair area sticky side down and wrap around holding firm pressure on the free end" as the tape wraps around the pipe it will become possible to pull down very tightly so forcing the *BIO-FIX*<sup>TM</sup> *911* through the tape up to the surface. Over- lap previous wraps by at least 1/2" in a spiral fashion and avoid wrinkles. At least three (3) wraps are recommended for excellent strength around a pipe repair. (Three wraps have been tested to well over 1,000 psi over a 1/4" hole in a 1" diameter test piece 24 hours after application).

WE URGE YOU TO READ THE MATERIAL SAFETY DATA SHEET (MSDS) BEFORE USING PRODUCT AND TO CALL POWERWRAP LP AS NECESSARY FOR ADVICE OR INFORMATION BEFORE ANY ACTUAL OR CONTEMPLATED APPLICATION. THIS PRODUCT IS MANUFACTURED IN THE USA BY THIN FILM TECHNOLOGY, INC.



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