

## PRODUCT DATA SHEET

# BIO-FIX™

# 913

“15-MINUTE” REPAIRS  
ABOVE OR BELOW  
WATER



Thin Film Technology, Inc.

**BIO-FIX™ 913** 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™\* fibers are incorporated for reinforcement and viscosity management to assure reliable application even under adverse conditions.

**BIO-FIX™ 913** is supplied in a standard white base, which is mixed with an equal volume of gray curing agent to yield a lighter gray when thoroughly mixed. The formula is uniquely field-friendly using advanced low toxicity ingredients and can be shipped by Ground "Non-Regulated" by USDOT. When shipped by Air or Ocean **BIO-FIX™ 913** is classified UN3082, PGIII.

*\*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 .....	Epoxy/proprietary
PIGMENTATION .....	Color/Inert/fibrous reinforcement
COLORS .....	Aluminum 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. 10' / 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) .....	15 mins. at 77°F
DRY TIME, (Service).....	20 - 30 mins. Light duty
APPLICATION METHOD.....	Spatula, Brush, roller or gloved hand
STORAGE CONDITIONS.....	Normal, Freezing OK
VOC. ....	Essentially zero

**INITIAL PREPARATION:** Before beginning to mix the BIO-FIX™ 913 components make a mental "run-through" of the job and prepare as much as possible beforehand. A pot life of 10 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™ 913 is supplied in equal volumes of white epoxy base and gray 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 10 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 Aluminum Gray color with no streaks of unmixed white or darker gray components. Pot life will be extended underwater by immediately immersing the mixed materials.

**APPLICATION:**

1) UNDERWATER Take the mixed BIO-FIX™ 913 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™ 913 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™ 913 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 thickness of glass 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 10 - 15 minutes. When used with glass fiber tape for leak sealing it is recommended to saturate the tape by "buttering" mixed BIO-FIX™ 913 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™ 913 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.