



BIO-FIX 913

"30 MINUTE" EPOXY REPAIR FOR ABOVE OR BELOW WATER

PRODUCT DESCRIPTION

BIO-FIX 913 is a quick curing, solvent free epoxy coating designed for use as a leak sealer and dent filler. 1:1 mix by volume and 30 mil single coat application creates an easy to apply, field friendly solution for difficult coating applications. Based on a unique blend of epoxy polymers and proprietary curing agents coupled with Kevlar reinforcement, **BIO-FIX 913** can be applied in high humidity, on wet surfaces, and even underwater by pad application and cures with no blushing or other ill-effects.

RECOMMENDED USES

ADHESIVE: Excellent all-purpose adhesive for use above and below water with excellent temperature resistance.

REPAIR COMPOUND: Patching, leak sealing, etc. above and below water on steel and concrete substrates.

PRESSURE TRANSFER COMPOUND: Rapid curing and high build for quick fix dent filling. Acts as pressure transfer material for FRP repairs.

PRODUCT INFORMATION

COMPOSITION:	Vehicle Type	Epoxy/Proprietary
	Pigmentation.	Colored/Inert/Kevlar Fiber reinforced
	Mixed Density	1.4 g/ml3
	Colors.	Standard colors - Haze Grey
	Finish/Gloss.	Matte, Textured
	Flash point.	>200°F
	Solids by volume.	100%, VOC free
	Thinner.	Not needed.
APPLICATION:	Mixing Ratio by volume	1:1
	Pot life	10 minutes at 77°F
	Induction Time	Not needed, apply immediately after mixing
	Application Method	Spatula, Trowel, Stiff Brush
	Recommended Application Thickness ...	30-40 mils
	Spreading Rate / gal	53 sq.ft./gallon @ 30 mils 40 sq.ft./gal @ 40 mils
	Dry Time, dust free.	25 minutes @ 77°F (25°C)
	Dry Time, Service	30 minutes @ 77°F (25°C) Light service 4 hours @ 77°F (25°C) Heavy duty
	Maximum Overcoat Window	48 hours at 77°F (25°C)
	Application Temperature.	40°-125°F
	Cleaner.	MEK or Lacquer thinner
SHELF LIFE:	Shelf Life	24 months
	Storage Conditions	Sealed containers above 32°F, stored in protected environment avoiding direct sunlight exposure.
TRANSPORTATION:	USDOT, IATA, IMO	Curing agent is UN3334 by <u>air only</u> . Non-haz by ground.

TESTING RESULTS

PROPERTY	TEST METHOD	RESULTS
Adhesion to steel	ASTM D4541	3,000+ psi (Dry surface) 2,000+ psi (Wet surface)
Compression Properties:	ASTM D695	11,400 psi (25°C)
Compressive Modulus	ASTM D695	289,000 psi
Compressive Strain	ASTM D695	5.59%
Glass Transition	ASTM E1356	280°F (138°C)

APPLICATION NOTES

SURFACE PREPARATION

- CONCRETE:** Surfaces should be allowed to cure for a minimum of 20 days before coating. Excessive weak surface laitance must be removed by either acid etching or abrasive sweeping before coating. Aged, uncoated concrete surfaces are best prepared by abrasive sweeping. Contamination by oil or grease should be removed with an industrial degreaser before abrasive blasting or acid etching.
- STEEL:** Most commonly used with fiber reinforced polymers (FRP) for structural reinforcement and dent repair. When used with fiberglass or carbon fiber, it is recommend to be used as a primer on the surface and to fill any dents or irregular areas. Prepare steel by abrasive blasting to SSPC-SP10, “Near White Blast” with a 2-4 mil anchor profile. Small areas may be prepared using mechanical tools such as needle scalers or abrasive discs.
- BELOW WATER:** Remove marine biological settlement and corrosion by high pressure water jetting with or without abrasive. Conventional air/abrasive blasting works well at shallow depths however efficiency falls off sharply below 10 feet. Hand held power tools such as needle guns or grinders can give good results in small areas. Apply within 45 minutes after surface preparation to minimize rusting or resettlement of biological fouling which interferes with adhesion.

MIXING PROCEDURES

Before mixing, make a mental “run-through” of the job and required tools. **Bio-Fix 913** is quick curing and must be used immediately after mixing or will cook off before application.

This material is a two-component product, premeasured to produce the desired kit size once part A and B are mixed. Mix using a stir stick or spatula as pot life is too short to use with powered mixers. Pour the curing agent into the base and mix for about 1 minute, taking care to reach all corners and walls to eliminate unmixed material. *Unmixed material will never harden.* Material may immediately be used.

Note: Pot life and reaction time is heavily dependent on temperature. As a general guide, every 18°F above 77°F will half pot life and cure time.

APPLICATION

Spread using a putty knife, plastic straight-edge spreader, of other flat surface. Quickly apply **BIO-FIX 913** after mixing and work into surface.

BIO-FIX 913 may be immersed in fresh or salt water immediately after application. It will cure to a hard film within 4 hours and is suitable for traffic after this time. Allow at least three (3) days at 77°F before subjecting to aggressive chemical service from industrial solvents and similar materials.