

PRODUCT DESCRIPTION

SEALRITE WBC is two component metallic polymer is made with surface tolerant additives and adhesion promoters to allow for repairs on wet and underwater applications. With its ability to displace water and directly bond to substrate, this strong, solvent free, non-rusting, non shrink, fully machinable formulation is a no-sag formula and can be applied vertically and overhead to 1/2" inch thicknesses for rebuilding, patching, sealing and bonding applications for metal & concrete substrates. Exhibits tenacious bond and resistance to most MRO chemicals. Sectors in use: Industrial and Marine applications.

INTENDED USES

- Underwater repairs to pilings, bouys, seawalls, docks, propellers, ship rudders & hulls etc
- Diving expeditions / maintenance & repairs
- Leak repairs on condensating/wet pipes & tanks
- Sealing leaks on pipes & tanks
- All metal repairs patching, rebuilding, filling, sealing and bonding metal to metal

BENEFITS

- Can be fully machined, drilled, tapped, sanded and coated over.
- Easy mix ratio, no special tools required
- No hot work involved
- Sold as kit containing mixing board, applicators, spatula set & Fiberzite Reinforcement Fabric.
- Highly chemical resistant to most chemicals
- Excellent bonding to steel, aluminum, copper, brass, stainless steel, some plastics & concrete

PRODUCT SPECIFICATIONS

Performance Data ■□	#937	#939
Color	Grey	Grey
Adhesive Tensile Shear(ASTM D1002)	2750psi	2850
Compressive Strength (ASTM D685)	12400 psi	6000 psi
Cured Hardness Rating (Shore D)	85	85
Coverage per kit @ 1/4" Note: account for waste & surface roughness	47.5 sq inches/kit	65 sq. in./kit
Dielectric Strength	30 volts/mil	152 volts/mil
Flexural Strength (ASTM D790)	8250 psi	5250 psi
Initial Cure	35 min @ 75F/24C	6 hours @ 75C/24C
Full Cure	6 Hours @ 75F/25C	24 hours @ 75C/24C
Full Immersion	24 Hours @ 75F/25C	-
Machinable @ 75F Cure Time	35 min	5 hours
Pot Life (Working Time)	10 min @ 75F	40 min @ 75C
Pull of adhesion (ASTM D4541)	3910 psi	2950 psi
Ratio Mix by Volume	1:1	1:1



SEALRITE WBC

Product Codes: 937, 939, 940

TECHNICAL DATA SHEET

Wet & Underwater Metal Repair Polymer - Paste Grade

Shrinkage	0%	0%
Temperature Resistance Dry	360F/121C	260F/204C
Temperature Resistance Wet (Immersion)	145F/54C	130F/66F

***Cure Time:** SEALRITE WBC cures faster with warmer temperatures and slower with colder temperatures. Temperatures will affect the pot life, initial cure, full and immersion cure rates of the product as well. However product performance after cure is un-affected. Please consult with EMP Inc.

Optimum Performance Requirement:

Sealrite WBC will fully cure at room temperature (75F/24F) within 24 hours and post heat curing is *not* required. For higher tolerances in specialized applications where stronger mechanical, thermal and chemical resistances are required, it may be post cured as follows: After 4 hours initial cure, raise temperature slow to 212F/100C for 4 hours. (This can highly enhance compressive, flexural, pull of adhesion and thermal properties can be enhanced. Consult with EMP Technical for specification # PC-ME-41970 if post curing is desired.

SURFACE PREPARATION

Above sea level applications on damp, wet or dry surfaces:

1) Surfaces must be clean and free from foreign matter. Wipe wet surfaces down with towel as best as possible. Remove any rust or oxidation. Metals must be prepared properly using a grinding wheel with a metal disc or grit blasting if available to a white metal finish. For best results, a surface profile of 5 mil is ideal. Proper profiling creates a tenacious mechanical bond and durability.

If mechanical means is not available or not feasible, manual surface preparation is recommended to the existing metal or substrate and hence 60-80 grit sand paper, wire brushes, metal files, hack saws will be the tools of choice to manually prepare the surface. Such tools may be used for surface preparation, cleaning and profiling to create a "tooth" or cross hatch pattern so that epoxy can anchor onto the substrate mechanically and chemically for a powerful bond.

For best results, If crack repair is being conducted, make sure to "V" out the crack. Drill and tap crack at the ends to stop crack propagation. For longer cracks, it may be necessary to drill and tap at every 2-4" for strength and stability of the repair.

2) Blow off, vacuum or wipe off any dust/debris from surface preparation.

3) Using a stiff bristle brush (supplied in the kit), clean and wash area vigorously with the quick evaporating, non-residue forming E.M.P. Metal Cleaner #701. Repeat twice and allow to dry properly. Begin application of epoxy immediately on the newly prepared surface to avoid contamination.

EMP Release Agent PN# 1126 can be used in areas where Sealrite WBC shouldn't adhere to. (eg: forming



TECHNICAL DATA SHEET

SEALRITE WBC

Product Codes: 937, 939, 940

Wet & Underwater Metal Repair Polymer - Paste Grade

mold, etc.)

Additional information: Please consult with our technical department for proper guidelines for surface preparation. Training and consultation are available on all E.M.P. Inc. products.

Underwater applications on damp, wet or dry surfaces:

1) Surfaces must be clean and free from foreign matter. Remove all algae, barnacles, slime, seaweed on the substrate. Remove any rust or oxidation. Metals must be prepared properly using a mechanical means such as underwater grinders or water blasting. For best results, a surface profile of 5 mil is ideal. Proper profiling creates a tenacious mechanical bond and durability.

If mechanical means is not available or not feasible, manual surface preparation is recommended to the existing metal or substrate and hence 60-80 grit sand paper, wire brushes, metal files, hack saws will be the tools of choice to manually prepare the surface. Such tools may be used for surface preparation, cleaning and profiling to create a "tooth" or cross hatch pattern so that epoxy can anchor onto the substrate mechanically and chemically for a powerful bond.

For best results, If crack repair is being conducted, make sure to "V" out the crack. Drill and tap crack at the ends to stop crack propagation. For longer cracks, it may be necessary to drill and tap at every 2-4" for strength and structurally sound repair.

Wipe area clean with towels & scotch pads to remove any debris and contaminants from surface preparation. Begin application of SEALRITE WBC immediately on the newly prepared surface.

Mixing

*This product is conveniently packaged in pre-measured kits ready to mix and apply. Each kit contains hardener and resin. Remove the appropriate amounts by volume of resin and hardener to be used on the non absorbing mixing board supplied in the kit. Lay both parts side by side to determine the measurement by volume. Mix both parts using the large spatula supplied in the kit. Lift all the material to be mixed and spackle down on the mixing board. Continue this process until a streak free, even and smooth consistency is reached.

Note: Mixing full kits is always recommended for proper cure however, small batches can be mixed with appropriate volume measurements. Be sure to always check the ratios on the product containers. Small mixing spoons and cups may be used for accurate volume mixes. (For eg: If volume measurement of a product is 1:1, then fill 1 cup of Resin to 1 cup of hardener, remove all the contents to a mixing board and mix to an even, smooth, streak free consistency.



TECHNICAL DATA SHEET

SEALRITE WBC

Product Codes: 937, 939, 940

Wet & Underwater Metal Repair Polymer - Paste Grade

Underwater applications:

Always mix product above water line then carry the mixed product for underwater application. Never mix Sealrite WBC underwater.

Application Method

Application Instructions:

Temperature Considerations (above sea water/water line)

If product is being stored in cold conditions, please move tubs to warm area to soften epoxy before use. Store product at 75F/23C before for use. For best results always apply at 40F or above. Heaters may be used by enclosing area with plastic to elevate the temperature for proper application.

Temperature Considerations (underwater applications)

If product is being stored in cold conditions, please move tubs to warm area to soften epoxy before use. Store product at 75F/23C before for use. In certain situations, product may have to be stored at higher temperatures before taking the product underwater. For best results always apply at 40F or above. For below 50F applications, please contact EMP Inc for other polymers available.

It is recommended to apply a thin layer first using a short bristle brush supplied in the kit. Brush material with firm pressure into the metal displacing water. Be careful not to have any air pockets under the product. Once this process is complete, immediately apply a thicker layer on top less than 1/4" and allow to dry.

For cracks, holes, gouge repairs & general repairs, use Fiberzite reinforcement tape as follows:

- 1) Apply a thin layer using a stiff bristle brush
- 2) Apply 1/8" layer of Sealrite WBC
- 3) Cut Fiberzite reinforcement tape to size of area to be built or sealed (approx 3" away and around the damage)
- 4) Saturate the fabric tape by using the applicator or spatula and firmly press a thin layer of Sealrite WBC metal on both sides
- 5) Affix Fiberzite on the previously applied layer using a brush with a dabbing and brushing motion making sure there are no air pockets between the fabric and the Sealrite WBC Metal.
- 6) Apply final coat of Sealrite WBC at 1/16"-1/8" over the Fiberzite fabric.
- 7) Allow to dry as per instructions

Note: Sealrite WBC can be used without Fiberzite in various applications standalone applications.

ACTIVE LEAK REPAIRS:

Active Leaks with pressure can be plugged with LEAKLOX EPOXY first. Abrade/clean the hole or crack, use LEAKLOX EPOXY to seal the leak. Then abrade the surrounding area and apply Sealrite WBC epoxy. For underwater leak repairs (high & low pressure), please consults EMP for tips on proper product usage. E.M.P. Inc. has various polymers & systems and combinations designed for underwater leak sealing.



TECHNICAL DATA SHEET

SEALRITE WBC

Product Codes: 937, 939, 940

Wet & Underwater Metal Repair Polymer - Paste Grade

PATCHING:

Standard procedures of surface prep, mixing and application remain the same.

PLATE BONDING & FIXTURES

Standard procedures of surface prep, mixing and application remain the same.

COMPATIBILITY:

Sealrite WBC can be used as a standalone system. It may also be used in conjunction with other E.M.P. systems as the final protection or main bonding layer. All E.M.P. Inc metal repair systems are designed to be compatible to one another to produce a homogeneous system.

Vertical & overhead surface applications:

Sealrite WBC may be applied up to 1/2" thickness (per coat) on vertical/overhead applications and thus completely sag free. It may be built up to the thickness desired.

Horizontal surface applications:

Sealrite WBC Epoxy may be applied as thick as required by building up layers.

Please contact EMP Inc technical department for specific application requirements and questions.

NOTE: A metal steel plate cut to size of the total repair conducted in thickness of 1/8"-1/4" can be bonded on top of SEALRITE WBC epoxy for additional structural strength. This is a common practice in industrial applications.

Lathing & Machining

Sealrite WBC can successfully sanded, drilled, tapped, sanded and machined to specifications required. Please consult with E.M.P. Inc technical department for lathing specifications for SEALRITE WBC specification # 937LT, 939LT, 940LT

Storage & Handling

Store at room temperature in a cool, dry place. Keep containers tightly closed after use. If long term storage is required after use, encase the resin and hardener in a plastic bag, remove all air and store. Vacuum packaging via plastic bags increases the shelf life.

Packaging

SEALRITE WBC , PN# 937

454 gram/Kit (Hardener & Epoxy)

1 - Mixing Board

1 - Fiberzite Reinforcement Tape

1 - Spatula Set

TECHNICAL DATA SHEET

- 1 - Paddle
- 1 - Applicator
- 1 - Stiff Bristle Brush

SEALRITE WBC , PN# 937B

(same as above without Mixing board, Fiberzite, spatula, paddle, applicator & stiff bristle brush)

SEALRITE WBC, PN# 939

454 grams/Kit (Hardener & Epoxy)

- 1- Mixing Board
- 1 -Fiberzite Reinforcement Mesh
- 1 -Spatula Set
- 1- Paddle
- 1- Applicator
- 1 -Stiff Bristle Brush

SEALRITE WBC, PN# 939B

(same as above without Mixing board, spatula, paddle, applicator & stiff bristle brush)

SEALRITE PN# 940 - Customized Formulation, Specification 24182-7

Optional, Additional Products:

Metal Repair System Applicator Tool Kit, Part # TK220 (Also sold separately))

Metal Cleaner #701 - Non-Residue forming, metal surface prep cleaner. Fast evaporation.

Release Agent PN# 1126 - can be used in areas where Sealrite WBC and other epoxies shouldn't adhere to. (eg: forming casting metal components/molds etc)



Extremely wet conditions and water leakage/flow required a strong polymer that would bond to wet/underwater conditions. Sealrite WBC used for repairs of cracked trenches for holding tank.



TECHNICAL DATA SHEET

SEALRITE WBC

Product Codes: 937, 939, 940

Wet & Underwater Metal Repair Polymer - Paste Grade

Data Sheet: Revision 3.

Warranty Information



SAFETY PRECAUTION: READ MATERIAL PRODUCT SAFETY DATA SHEETS BEFORE USING PRODUCT. Our products are intended for use by experienced professional only. Suitable chemical resistant gloves, safety glasses or full face shields, protective clothing and respirators must be worn as per product safety data sheet while conducting surface preparation and applying product. Do not smoke or drink while using product. Keep away from open flames and sparks.

EMPCORR warrants their product from defects. Because the application, handling or storing of our products is beyond our control, EMPCORR will not be held liable and in any form whatsoever for the results obtained after usage. To the best of our knowledge, the technical data contained herein is accurate on the date of publication and is subject to change without prior notice. Purchasers shall conduct their own tests to determine the suitability of our products for their particular purpose. Product properties, performance data and contents of this technical data sheets should not be constructed as specifications. User must contact EMPCORR to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. EMPCORR assumes no responsibility for coverage, performance or injuries resulting from use. No other warranty or guarantee of any kind is made by EMPCORR, express or implied, statutory, by operation of law, or otherwise, including merchantability and fit for a particular purpose

Liability, if any, is limited to replacement of products or net selling price of the product; EMPCORR shall not be liable for incidental or consequential damages, direct or indirect including but not limited to lost profits, down time, damages to property of the purchaser or other persons, bodily harm or injuries to purchaser or other persons, or damages for which the purchaser may be liable to other persons, whether or not occasioned by EMPCORR's negligence. Acceptance of delivery of our product means that you have accepted the terms of this notice, warranty and liability whether or not orders or other documents state terms that vary from this warranty. Our products contain chemicals that may cause serious physical injury. Before using, read the safety data sheet and follow all safety precautions, and use proper protective equipment (PPE) to prevent bodily harm before using the product.