



FUEL TANK REPAIR KIT

**For Steel and Aluminum Fuel Tanks
(Up to 12 Gallons)**

IES Fuel Tank Repair Kit contains the essential chemicals necessary to successfully restore metal fuel tanks.

The repair procedure is a 4 step process which includes:

1. Cleaning the tank thoroughly
2. Neutralizing the rust and etching the inner surface of the tank
3. Patching holes in the tank
4. Sealing the tank

APPLICATIONS

Motorcycle tanks	Fuel tanks
Diesel tanks	Oil tanks
Bio-diesel tanks	Non potable water tanks

BENEFITS

Stops Rust and Corrosion
Forms a Super Tough Fuel & Alcohol Resistant Coating
Seals Leaks in Seams and Pinholes
Has Tremendous Adhesion to Properly Prepared Metals

PRODUCT SPECIFICATIONS

Color:	Aluminum
Weight per Gallon:	9.0 to 9.2 lbs.
Viscosity:	250 - 450 cps
Flash Point:	145°F, 63°C
VOC's:	Less than 340 g/l
Solids:	76%
Application Temperature:	55° - 83° F
Dry to the Touch:	4 - 6 Hours (77°F / 50% RH)
Full Cure:	96 Hours (4 days)
Storage Temperature:	50° to 85°F, Store in a cool dry place

KIT CONTENTS

- 1 - Quart of IES #1920 Cleaner/Degreaser - removes, sludge & varnish
- 1 - Quart of IES #1840 Rust Raider/Metal Etch - removes rust & prepares metal
- 2 - 8 oz. Cans of IES Fuel Tank Sealer - seals tank permanently
- 1 - piece of fiber glass repair cloth
- 1 - stir stick

Other Supplemental Items Needed

Eye Protection	Latex Gloves
Paint Brush/Applicator	Duct Tape or Plug for sealing openings in tank
Access to hot water	Garden hose and bucket
Sand Paper	

DIRECTIONS - ALSO READ TROUBLE SHOOTING TIPS ON REVERSE

Wear eye protection and latex gloves and insure there is proper ventilation when using the products in this kit. Please see precautions on label and read SDS sheets that are available at www.useies.com prior to using.

Remove all the fuel from the tank. Remove the tank from the vehicle and remove petcock and any other attaching parts such as, floats, fittings, filters, etc. Outside painted surfaces of the tank should be protected from preparation and sealing products with suitable protection. *If tank was sealed years ago with another sealer, the old sealer must be removed first. Please see notes at bottom of this page for instructions.*

Step 1. Clean the tank. Rinse the tank thoroughly with water and seal petcock hole with duct tape, cork or rubber plug. Pour 1 quart of IES #1920 Cleaner/Degreaser into the tank and then add 1 quart of hot water. Install fuel cap and shake the tank vigorously. Rotate the tank to make sure the cleaner gets into all areas of the tank. Do this for a minimum of 20 minutes. Empty the contents of the tank and rinse with water.

Step 2. Remove the Rust and Etch the Inside Metal Surfaces. Pour the entire bottle of IES #1840 Rust Raider into the tank and cap tank. Rotate the tank to different positions to make sure all inner surfaces are coated. Do this for a minimum of 20 minutes. Set the tank in a different position for 30 minutes until the entire inside of tank has been treated. Do not leave Rust Raider in the tank for more than 2 hours total. Rinse the tank thoroughly with warm water several times and drain. Remove the plug or tape from the petcock fitting. Rotate the tank around to make sure all water is drained from the tank. The tank must be thoroughly dried before you can proceed to Step 3. You can accomplish this by using a hot air gun or hair dryer. Blow warm air into the tank until the tank is completely dry. The tank sealer will not bond to a damp or wet tank. Replug the petcock fitting.

Step 3. Patching Pin Holes. If the tank has any large exterior/interior holes, now is the time to fix them. We recommend the following procedure. Remove all the paint around the area to be patched. Apply a liberal amount of IES Rust Raider to the area. Keep it wet for a minimum of 30 minutes. Then rinse with water and dry using a hot air gun. Cut a piece of the fiber glass mesh the size of the repair area. Open the can of IES Fuel Tank Sealer and stir until a uniform color is achieved. Paint the repair area with IES Fuel Tank Sealer and place the piece of mesh on to the repair area and apply another coat of the IES fuel tank sealer, brushing from the center to the outer edges so the mesh is stretched evenly. A second application may be necessary. Close the can and allow the patched area to dry.

Step 4. Sealing The Inside Of The Tank. Open the can of IES Fuel Tank Sealer and stir until a uniform color is achieved. Pour the entire contents of the can into the tank and cap. Rotate the tank slowly and make sure all inside areas of the tank are coated uniformly. Drain any excess sealer from the tank. Remove the petcock plug and allow any excess sealer to completely drain from all areas of the tank. Some tanks have low areas, make sure all sealer is drained. Immediately clean the threads of the petcock of all sealer, cap area and any other areas that you did not want to be sealed. This is a very strong durable coating, immediately clean all surfaces where sealer has spilled.

NOTE: Tank temperature must be between 55°F and 83°F before and during the application and curing process!

NOTES: REMOVING OLD SEALER. If the tank was sealed years ago with another sealer, the sealer must be removed. This can be accomplished by using a methylene chloride paint stripper. Always wear protective gloves and eye protection when working with paint stripper. First pour 1 quart of stripper into the tank and cap. Then rotate the tank to various positions so the stripper comes in contact with all surfaces inside the tank. Rotate the tank and let stand for a few minutes in each position. Rinse the tank with water and using long tongs pull out the large pieces of sealer and rinse again. It may take several applications to remove old sealer.

PRODUCT AVAILABLE

FTR-12 Fuel Tank Repair Kit - Up to 12 gallons 1 Kit

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. International Epoxies & Sealers shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith.

FUEL TANK REPAIR TROUBLE SHOOTING

Small Bubbles, Pinholes or Craters in or on the paint film

CAUSE:

Liquid solvents, in the coating, become "trapped" in the paint film when the surface layer skins over too quickly, preventing their evaporation into the atmosphere. Solvents that evaporate within the paint film leave bubbles, pinholes or craters as they push through the surface (Solvent Pop).

Solvents can be trapped due to:

1. Excessive film thickness from pooling in tank.
2. Too hot and/or too humid atmospheric conditions.
3. Too hot/warm tank conditions.
4. Moisture remaining in tank.

REPAIR:

1. Allow surface to completely cure and reevaluate.
2. Strip out and remove coating with paint stripper. Repeat the IES, Three Step Fuel Tank Repair Procedures.

PREVENTION:

- Before applying sealer, allow tank to reach room temperature. (ideal 55° - 83°F)
- Do not attempt to apply sealer in direct sunlight.
- Make sure you drain out all excessive sealer. Keep coating from pooling inside tank.
- Avoid too hot/humid atmospheric conditions (ideal 55° - 83°F).
- Do not allow coated tank to "cure or dry" in direct sunlight.
- Keep tank away from heat while curing.

Peeling, Flaking or Delaminating

CAUSE:

1. Improper preparation of the substrate (cleaning & etching).
2. Inadequate drying of tank interior prior to applying sealer.
3. Too hot/humid atmospheric and/or tank surface conditions during application or curing.

REPAIR:

1. Strip out and remove coating with paint stripper. Repeat the IES, Three Step Fuel Tank Repair Procedures.

PREVENTION:

- Thoroughly clean and prepare all tank surfaces according to product recommendations.
- Allow tank interior to dry completely before applying sealer.(use hair dryer or heat gun)
- Allow tank to reach normal room temperature before applying sealer. (55° - 83°F).
- Allow tank to dry slowly at room temperature. (55° - 83°F).
- Do not attempt to "speed up" the cure time by placing tank in direct sun or near heat source.