

## TECHNICAL DATA SHEET

### Product Name: Transformer Leak Repair Kit

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010

Product Description: Sealing Transformer Oil Leaks (Dielectric fluid, nitrogen and SF6) has been a common problem in utilities worldwide. They occur due to various reasons namely, bad welds, cracked voltage bushings, valves, switches, corrosion, etc. In the past, maintenance personnel would have to take the leaking equipment out of service, drain the oil and replace old worn components like gasketing etc or replace entire components. The costs of such repairs and replacement was in the tens of thousands of dollars as well as the downtime.

The invention of the Transformer Repair Kit by EMP Inc. has changed this costly process. Now utilities worldwide are using our products to save time and labor by repairing transformer leaks using our high efficiency epoxy polymers to repair leaks permanently. The leaks can now be repaired without draining the system or depressurizing the vessels.

The Transformer Leak consists of 3 major products applied successively in the correct order. They are Oil Stop Plug (Elastoflex), Oil Stop Fast Cure (Hells Putty 500) & Oil Stop Final Coat ( Rubberex).

#### Advantages :

- Repair a leak in under 10 min
- Versatile System
- Transformer Leak Repair Kit Contains easy to use components!
- Used worldwide as the "Go to" repair
- Save thousands of \$\$\$ on transformer shut down & costly repairs
- Oil Stop Transformer Leak Repair is impervious to oil
- Interior & Exterior Use
- 3 Step System : Each perfectly designed with Leaking Transformers in mind

#### Usage:

Power Plants/Nuclear & Utility Companies  
Ship & Marine Industry  
Oil & Gas Refineries  
Hotels, Hospitals, Universities

## TECHNICAL DATA SHEET

**Product Name: Transformer Leak Repair Kit**

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010



### SEALING A LEAKING TRANSFORMER FIN WITH OIL IN 3 STEPS!



STEP 1: Clean area around the leak and immediately apply Oil Stop Plug (Elastoflex). Elastoflex will bond tightly to oily surfaces even while oil is leaking. The Oil Plug will cover approx. 1" around the leaking hole.



STEP 2: Mix & Apply Oil Plug Fast Cure (Hells Putty 500) approximately 1.5" away and around the Oil Stop Plug (Elastoflex). This product will set and harden in 5 minutes.



STEP 2: Mix & Apply Oil Plug Final Coat approximately 1.5" away and around the Oil Stop Fast Cure. The repair is ready.

Oil Stop Final Coat may be painted within 2 hours to any color desired.

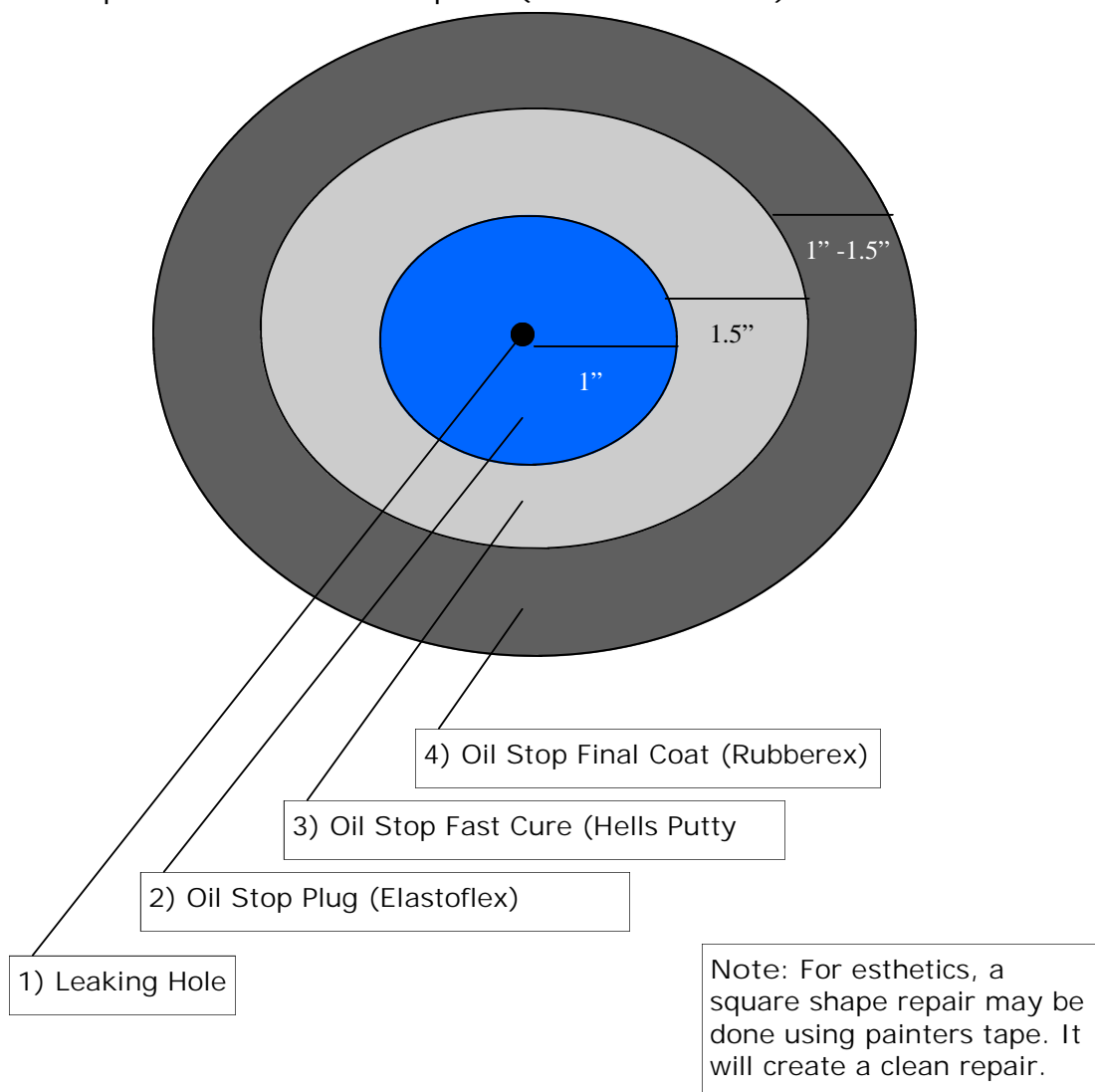
## TECHNICAL DATA SHEET

Product Name: Transformer Leak Repair Kit

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 www.empinc.com

Revision: 1-4-2010

Pictorial Representation of Repair (Cross Section)



Training Demos Available Worldwide

E.M.P. Inc. has a group of well trained master technicians with years of training on leak sealing and will travel worldwide to hold a 45 min training session on proper product usage. The transformer leak kit is well designed with years of product development and research. You will get trained evaluation, design, theory, surface preparation, product usage and safety. Please contact U.S. National Sales Rep, Peter Davidson at 516-445-7801 for more information on how to bring this technology to your industrial plant.

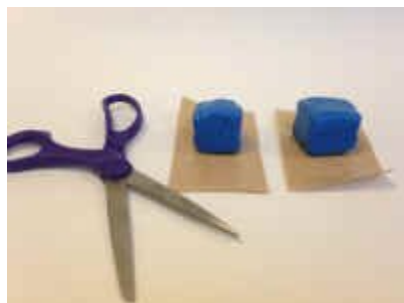
## TECHNICAL DATA SHEET

### Product Name: Transformer Leak Repair Kit

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010

#### Contents of The Transformer Leak Repair Kit:



STEP #1: Oil Stop Plug (Elastoflex) - This is the first defense and you will use this 95% of the time while stopping low pressure transformer leaks. While the rest of the industry uses a two component epoxies, we developed our own specialty one component, oil resistant, extremely sticky Pregzite reinforced compound. It has the ability to stick to oily surfaces by displacing oil. Simply cut the



STEP #2: OIL STOP Fast Cure (WBC Sealrite) - This product is used after Oil Stop Plug is applied and the leaking oil is sealed. Provides extreme adhesion, easy pre-measured two component compound is mixed and applied to form a seal around the Oil Stop Plug. Extend approximately 1.5 to 2" away and around the Oil Stop Plug. Cures in 5 min to form a 100 psi stopping power.



STEP #3: OIL STOP Final Coat (Rubberex) - The final coat is applied over the Fast Cure. Pre-measured and easy to apply, Fast Cure will seal the repair creating a permanent repair. Cures in approximately 3 hours at 75F and full cure in 24 hours. Do not skip this step as it is very important and adds to the performance of the transformer leak repair



45 Second Epoxy (Repairite 14) - We call it the world's fastest oil stopping epoxy. Mix quick and apply under a minute. Use for certain situations only. This is included in your kit as a back up. This two component product is ideal to seal active leaks. It is used in place of Oil Stop Plug in certain situations. Clean the area around the leak, wipe the area with solvent cleaning pads, mix and hold pressure until it hardens. It rapidly hardens but works amazingly well.

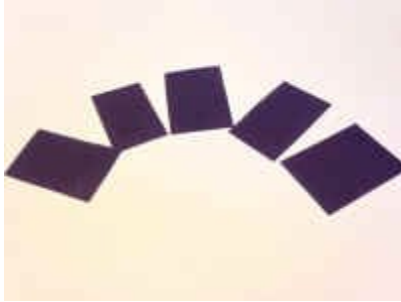
## TECHNICAL DATA SHEET

**Product Name: Transformer Leak Repair Kit**

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010

Continued ... Contents of The Transformer Leak Repair Kit:



Sand Paper - An important part of surface prep which one must perform during the repairs. The sand paper will be used when an electric grinder (best option) is not available or in hard to reach places. Sand the metal at and around the leak, removing rust and paint until bare clean metal is reached. Plug the leak with Oil Stop Plug. Sand approximately 1" extending around the Oil Stop Plug and wipe with solvent wipes included in the kit. Apply Oil Stop Fast Cure. Again sand another 1.5" extending around the Fast Cure and use solvent wipe. Apply Oil Stop final coat. And you're done!



SOLVENT WIPES - IPA Based. Non-Residue solvent wipes are an integral part of the surface prep. Normally used after sanding or grinding to remove dust created by sanding. Each wipe is carefully packaged in a sealed packet for convenience. You will use approximately 3-4 wipes per repair.



GLOVES & ACCESSORIES also included in the kit. Safety first! With any work in any environment, use basic PPE. Gloves, safety glasses, etc.

- Repair a leak in under 10 min
- Versatile System
- Transformer Leak Repair Kit Contains easy to use components!
- Used worldwide as the "Go to" repair
- Save thousands of \$\$\$ on transformer shut down & costly repairs
- Oil Stop Transformer Leak Repair is impervious to oil
- Interior & Exterior Use
- 3 Step System - Each perfectly designed with Leaking Transformers in mind

## TECHNICAL DATA SHEET

**Product Name: Transformer Leak Repair Kit**

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010

### Product Usage:

Note: Surface Preparation is an integral part of this repair. As with any type of coating, proper surface preparation is key. Paying close attention to prep will result in a successful life time repair.

First and foremost, 2" around the hole is cleaned thoroughly using the wire brush. If these tools are not available, sand paper is included in the kit. Remove all loose rust and paint. Grind down to bare metal for best results. Solvent wipe this area. Let the oil drip or seep out, this doesn't matter. Remove Oil Stop Plug from the wrapper and plug the leak by holding pressure and working the product in a dabbing/pressing motion. Oil Stop Plug has been designed to stick to oily surfaces. Sometimes it may not look like it's sticking but as you apply pressure it will displace the oil and will adhere to the surface. Oil Stop Plug is extremely sticky so be careful placing it on any surface. Unused portions must be returned back to the wrapper it was supplied in.

The next step is very crucial. Solvent wipe around the area removing any transformer oil that was seeping after plugging it. Grind approximately 1" around the sealed leak to bare metal. If possible, use a hand held grinder or wire wheel for optimum results. If these tools are unavailable, use a clean piece of the sand paper included. There are approximately 5 pieces of sand paper in your Transformer Oil Repair Kit. Remove any debris, dirt and paint. Solvent wipe thoroughly again on the grinded surface to remove dust.

Mix the two component Oil Stop Fast Cure epoxy and apply covering the Oil Stop Plug and extending about 1". Thickness of the application is approx 1/4". Make sure the area there are no voids when applying this product especially on your extension. Make sure the entire area is well covered and no pin holes or gaps are showing. Allow Oil Stop Fast Cure to set and be tack free. Approximately 5 min. at 70F. As this product is hardening, you may wet your hand and dab on the product gently to give it a smooth finish (optional). Lower temperatures may prolong tack time.

After Oil Stop Fast Cure is tack free, grind approximately 1" around the Oil Stop Fast Cure (that was just installed) to bare metal. If possible, use a hand held grinder or wire wheel for optimum results. If these tools are unavailable, use a clean piece of the sand paper included. Mix the two component Oil Stop Final Coat epoxy. Apply over the Oil Stop Fast Cure at a thickness of about 1/8" and extend outward to approximately 1" to 1.5". You have completed your repair.

Recommendations As with any repair when using coatings or epoxies. EMP Inc. prefers repairs that esthetically clean. We recommend using masking tape before applying Oil Stop Fast Cure. Square out your application area and remove tape right after properly spreading the material to give you a clean edge. Masking tape can also be used with the Oil Stop Final Coat by making the square around the Oil Stop Fast Cure extending outward to 1". Apply and remove tape. This method will provide a fantastic professional repair.

## TECHNICAL DATA SHEET

**Product Name: Transformer Leak Repair Kit**

Manufacturer: E.M.P. Inc. Tel: 516-624-9774 [www.empinc.com](http://www.empinc.com)

Revision: 1-4-2010

Product Usage:

Mixing Recommendations: For best results, mix Oil Stop Fast Cure and Oil Stop Final Coat to an even, streak free consistency. Colder temperatures will increase cure times. Warmer temperatures means faster cure times. In cold weather, it is always a good idea to bring the products up to room temperature before using. Please contact E.M.P. Inc at 516-624-9774 when applying in unusual conditions.

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact EMP Inc. to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to EMP Inc. quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY EMP INC., EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

E.M.P Inc.  
PO BOX 548  
SYOSSET NY, 11791  
TEL: 516-624-9774  
24 Hour Technical Support: 516-445-7801  
FAX: 516-624-9860  
[www.empinc.com](http://www.empinc.com)