

SYNTHO-GLASS[®] UP

PRESSURIZED PIPE & JOINT REPAIR KIT



Description

Syntho-Glass[®]UP Repair System was specifically designed for under pressure leak repair applications on copper, steel, SS, PVC, FRP, clay, concrete, rubber, and more. By combining the original Syntho-Glass[®] product, with the extremely chemically resistant Syntho-Steel[™] and unique Pressure Sealing Rubber Tape, this offers the geometric flexibility to repair joints, tees, couplings, and pinholes. This complete system simplifies the application process and is prepackaged to accommodate pipes up to 10 inches in diameter. Larger repair applications can be engineered to meet your requirements.

Included	Item #	Pipe Diameter
<input type="checkbox"/>	UP520	1/2" - 1" (12.7mm - 25.4mm)
<input type="checkbox"/>	UP930	1 1/4" - 2" (31.75mm - 50.8mm)
<input type="checkbox"/>	UP415	2 1/2" - 4" (63.5mm - 101.6mm)
<input type="checkbox"/>	UP430	4 1/2" - 6" (114.3mm - 152.4mm)
<input type="checkbox"/>	UP650	6 1/2" - 10" (165.1mm - 254mm)

USE BEFORE:

Procedures to be taken in handling and storage

For ideal shelf life, store Syntho-Glass in a cool, shaded area at 72°F (23°C). Do not expose to temperatures above 110°F (44°C) or below 40°F (5°C). Care must be taken when handling Syntho-Glass' hermetically sealed foil pouch to prevent puncturing or scuffing. If the protective foil pouch is punctured, the Syntho-Glass will be exposed to atmospheric moisture which will cause it to cure within the foil pouch.



Made in USA

MSDS available at: <http://neptuneresearch.com/downloads/>

Kit Contents

- Step-by-Step Instructions
- Sanding Cloth
- Solvent Cleaning Wipe
- Protective Gloves
- Syntho-Steel Putty
- Butyl Strip(s)
- Pressure Sealing Rubber Tape
- Syntho-Glass Outer Wrap
- Compression Film

Benefits

- Repair of pipes under pressure up to 60 psi (4.1 bar)
- No shutdown necessary
- Simple application
- Effective, time-saving
- No mixing and no mess
- Sets rock hard in minutes
- NSF61 and BS6920 approved for potable water when Syntho-Steel is used as the primary sealant

Typical Applications

- Live active leak repair on:
 - Joints
 - Pinholes
 - Cracks

Properties

VOCs: None

Service Temperature:

Syntho-Steel, Pressure Sealing Tape and Syntho-Glass:

-50 to 250°F (-46 to 121°C)

Butyl Strip:

-50 to 158°F (-46 to 70°C)

Application Temp:

32 to 150°F (0 to 65°C)

Live Repair Pressure:

Max 60 psi (4.1 bar)

Pressure Once Cured:

Max 300 psi (20.6 bar)

Set Time: 28 Minutes at 70°F (21°C)

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READ ALL INSTRUCTIONS BEFORE OPENING PACKAGE!



1. Locate leak following standard leak detection procedures. Reduce line pressure to 60 psi (4 bar).
2. Roughen pipe surface using wire brush & supplied sanding cloth to remove excess rust, dirt or loose scale. Remove any oils, greases, soaps or foreign materials from pipe surface using the included solvent cleaning wipe.
3. Unroll first 6" (15cm) from roll of black rubber Pressure Sealing Tape (PTR) & remove backings; set aside. Remove Syntho-Steel Putty from packaging & knead until uniform in color. Maximum mixing time: 3 minutes. Minimum mixing temp: 50°F (10°C)



- COMPLETE #4 OR #5 DEPENDING ON YOUR APPLICATION, THEN PROCEED TO #6**
4. PINHOLE: Place ball of mixed Syntho-Steel Putty just large enough to fill the void above pinhole.
 5. JOINT: Mold mixed Syntho-Steel Putty into a rope 1/8"-1/4" (3mm-6mm) rope and place around entire circumference of the joint, pressing firmly into place. NOTE: the rope should not exceed the shoulder of female fitting.



OPTIONAL: For difficult liquid repairs, apply Butyl Strip(s) in lieu of, or in addition to, Syntho-Steel (steps 4 & 5 above). Remove adhesive backing from Butyl Strip(s) and apply in an overlapping manor around the entire circumference of the joint.



6. Press adhesive side of black rubber Pressure Sealing Tape (PTR) onto pipe beside Syntho-Steel Putty, or Butyl Strip, and overwrap 2 layers of PTR onto itself in a clockwise direction, thus anchoring the PTR to the pipe. Continue wrapping PTR, stretching it to its maximum tension, working toward putty, thus pushing the putty into the defect. Wrap remainder of PTR DIRECTLY over the putty, forcing the putty into the defect. DO NOT CHASE THE LEAK, as each wrap of PTR provides additional pressure to seal the leak. Use entire roll.



7. **STOP!** After applying PTR, test repair by following your leak detection procedure to ensure the leak is sealed & contained. If leak persists, remove PTR and putty and repeat steps 1-7.
8. Water is needed to activate the Syntho-Glass Outer Wrap (SG). Put on supplied gloves, open foil pouch & submerge the roll of SG in water for approximately 10 seconds. 8 layers of SG are required & must extend 2" (5cm) on either side of the PTR, covering the entire repair site.
NOTE: To achieve an 8 layer application, apply 4 passes of SG in a clockwise direction using a 50% overlap. Occasionally twisting the SG as it is applied helps it conform tightly to the pipe surface at elbows or odd geometries.
6. Apply 4 layers of clear plastic compression film over the entire composite repair, wrapping in the same direction as the SG was applied. Using a perforating tool or wire brush, perforate all layers of compression film to allow the gas generated by the curing process to escape. Remove compression film after approximately 10 minutes.
7. Once the SG has reached its initial cure, 28 minutes @ 75°F (24°C), it should be protected with a UV coating, such as Syntho-Glass®UV before returning to service.

Precautions

The resin used in Syntho-Glass will adhere to skin and clothing and may cause skin irritation. Protective gloves should be worn while handling. Care should be exercised to avoid contact with unprotected areas of skin and eyes. Swabbing lightly with alcohol or acetone will help remove resin from skin (prior to set). If eyes are exposed to the resin, flush eyes with water 15 minutes and then contact physician. **STORE IN A COOL, SHADED AND DRY AREA.**

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