



Unique Polymer Systems

ADVANCED POLYMER SURFACE ENGINEERING TECHNOLOGY

Unique Polymer Systems Pipe Repair Tape



Unique Polymer Systems 'Pipe Repair Tape' is a high performance rapid curing moisture activated repair bandage, specifically developed for the repair of leaking pipes, which is activated by immersion in water.

Unique Polymer Systems 'Pipe Repair Tape' is ideal for pipe repairs to low pressure systems. As a general guide, a repair built up to a thickness of approximately 12mm (½") will withstand a maximum service pressure of 10 bar (150 psi). Higher pressures, up to 50 bar, can be achieved by first applying a 'plug' of PUTTY as described herein, always at users discretion.

Pipes up to a nominal diameter of 400mm may be repaired using **Unique Polymer Systems 'Pipe Repair Tape'** (please ensure the correct size bandage is used relevant to the pipe dimension.) with holes approximately 3mm to 6mm diameter.

SURFACE PREPARATION & APPLICATION PROCEDURE

- All pressure within the pipe should be released. For leaks where pressure cannot be removed, holes should be stopped using a pipe repair clamp.
- Remove all oil, grease, loose rust scale, sealant tape and paint from the repair area. Rough score a 10 cm (4 inch) patch around the pipe centering on the leak site.
- If the pipe surface is pitted by rust, surfaces must be wire brushed to remove the loose scale. If the surface is smooth, as with copper or stainless steel, surfaces should be roughened with a coarse file, rasp or saw blade.
- For plastic pipe, the external mould release must be removed. Abrade surfaces with a coarse grit sandpaper. A saw blade may also be used to create a cross hatch pattern. This is particularly useful on polypropylene and PVDF piping.

- During mixing and during application, lightweight disposable gloves should be worn to protect the hands.

Unique Polymer Systems ' Pipe Repair Tape' is a single component material which should be immersed in water and squeezed two or three times for about 5 seconds prior to use.

- Remove roll from water and wrap quickly and tightly as follows.

- Centre tape over leak site, wrap from bottom of roll, pulling firmly throughout application. After 5-7 plies, resin foam will come through the tape, which is desirable and aided by pulling tightly. Continue until entire roll is applied, building to a minimum thickness of ½ inch (12 mm), use a second roll if necessary. Firmly press and smooth end of roll into wrap in the direction of application. Wet gloves in water, smooth and firmly press the wet resin back into the wrap.

- When used in conjunction with a plug of **Unique Polymer Systems 'Plastic Steel'** repeat the above instructions but having first plugged the hole. Knead a small bead of putty in gloved hand and flatten into a disc centrally over the hole pressing gently and feathering out the edges. Leave to semi-harden (full cure 30 minutes) before applying tape, although tape may be applied immediately if necessary.

- KEEP HANDS MOVING QUICKLY AND WET GLOVES FREQUENTLY TO AVOID STICKING.

- Continue rapid hand movement pressing and polishing resin in motions around and parallel to the pipe. Continue process until resins are no longer tacky. The repair should now have a smooth, hard surface and an enamel-like appearance with no fabric protruding through the surface.

PHYSICAL CONSTANTS

Mixing Ratio Supplied ready to use

Appearance Resin impregnated bandage

Drying & Cure times at 20°C (68°F)

Usable Life	2-3 minutes
Initial	Set 5 minutes
Full Mechanical Strength	30 minutes

Volume Solids 100%

V.O.C Nil

Shelf Life: Use within 18 months of purchase.
 Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

PACKAGING

UPS19601	50mm x 1.5m Nominal Bore > 100mm
UPS19603	50mm x 3.6m – Nominal Bore > 200mm
UPS19604	75mm x 3.6m – Nominal Bore > 300mm
UPS19605	100mm x 3.6m – Nominal Bore > 400mm
UPSPWSK	Small Pipe Wrap Kit Contents UPS19601 – 5 off + 1-off Metal Putty Stick

For LARGER pipes please use UPS19000 products.

RECOMMENDED APPLICATIONS

The Repair of ALL types and SIZES of Pipes Within The Temperate & Pressure Limits.

Used For The COATING and PROTECTION against ENVIRONMENTAL ATTACK.

Products also available for the PROTECTION OF LAGGING SYSTEMS

FOR MORE INFORMATION, PLEASE CONTACT:



PHYSICAL PROPERTIES

Tensile Strength
 ASTM D6382 19 N/mm² (2755 psi)

Flexural Strength
 ASTM D790 32 N/mm² (4640 psi)

Maximum Heat Resistance
 ASTM D648 270°C (500°F)

Hardness (Shore D)
 ASTM D785 82

Adhesion (Bond Strength) 14 N/mm² (2000 psi)

Maximum Service Pressure
 (½ inch/12 mm thick repair) 10 bar (150 psi)
 (1 inch/25 mm thick repair) 27.5 bar (400 psi)

KEY

R - Resistant for continuous immersion (Full Listing On Application)

Benzene	R
Citric Acid <10%	R
Crude Oil	R
Diesel	R
Formic Acid <10%	R
Zinc Chloride	R
Phosphoric Acid < 10-20-75%	R
Pottassium Carbonate	R

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product of this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



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