

TDS

TECHNICAL DATA SHEET

DATE OF ISSUE: 04/05/2022



PRODUCT NAME:

RAPP-IT PIPE REPAIR BANDAGE

PRODUCT DESCRIPTION:

The Rapp-it Pipe Repair System includes a woven fibreglass bandage impregnated with water-activated resin and a 90mm stick of Rapp-it Steel Putty. Rapp-it is designed and developed for emergency industrial pipe repairs.

RECOMMENDED USE:

Rapp-it is the Ultimate Pipe Repair System for your temporary emergency pipe repair needs. It is simple to use, with no mixing or measuring required. A successful pipe repair can be achieved in only 30 minutes.

Rapp-it can be used on all types of pipes including polypipe (PP/HDPE), GRE, ABS, steel, PVC, rubber, concrete, galvanised, ceramic, clay, stainless steel, basalt, fibreglass, copper and all insert piping. It can be applied on cracked, fractured, damaged and leaking pipes; around straight lengths and difficult shapes like tee pieces and elbow joints, y pieces, couplings and clamps, 45°/90°. Rapp-it is suitable for use on wet or dry pipes. It can even be applied underwater, in fresh or salt water.

PHYSICAL AND CHEMICAL PROPERTIES

(Bandage)

Form	Solid
Appearance	Knitted fabric coated with sticky resin
Colour	White/off-white
Odour	A unique, weak odour
Solubility in Water	Reacts with water
Specific Gravity	1.12 (25°C / 77°F)
Flash Point	>200°C (>392°F)
Flammability	Not flammable

FIVE CONVENIENT SIZES

50mm x 3.6m (2" x 12')
75mm x 3.6m (3" x 12')
100mm x 3.6m (4" x 12')
100mm x 4.8m (4" x 16')
100mm x 9m (4" x 30')

PART NO.

RAP122
RAP123
RAP124
RAP164
RAP304

BANDAGE SPECIFICATIONS

Resin Makeup	Water-activated Polyurethane
Heat Resistance	150°C (300°F)
Pressure Resistance	Internal Pressure up to 2500 kPa (360 psi)
Bonds to Most Pipes	Steel Polypipe (PP/HDPE) PVC Fibreglass Copper
Set Time	30 minutes, sets under water
Chemical, Fuel & Oil Resistant	Acid Lines Oils Gas Sea water



PACKAGING



Rapp-it is packaged inside a heat-sealed click-seal bag. Each bag includes: a Rapp-it Pipe Repair Bandage with a red inner core, inside a foil pouch; a 90mm (3.5") Rapp-it Steel Putty inside a plastic tube; and a pair of long, premium nitrile gloves.

Storage

We recommend storing Rapp-it below 25°C (77°F) to ensure longevity.

Shelf life

Rapp-it has a shelf life of approximately 2 years from the date of manufacture, which is located on the exterior packaging.

CERTIFICATIONS

NATO Certification

Rapp-it has been granted NATO Certification. This is only awarded to key quality products and suppliers with stringent quality assurance programs. Our NATO Stock Number is 4730-66-1257893.

Potable (Drinking) Water

Both Rapp-it Pipe Repair Bandage and Rapp-it Steel Putty are compliant with Australian Standard (AS/NZS 4020:2018). Rapp-it Steel Putty is also compliant with the equivalent US Standard, NSF 61.

PRESSURE TESTING

Proof pressure test successful at 725 psi (5000 kPa) on 50mm galvanized pipe with 10mm drilled hole.

Proof pressure test successful at 1810 psi (12,500 kPa) on 25mm galvanized pipe with 10mm drilled hole.

*Results may vary depending on pipe substrate, pipe size, pipe contents, damage type and size, and application technique.

TEMPERATURE TESTING

Three simultaneous thermal analysis tests were performed on a Rapp-it Pipe Repair Bandage.

The resulting continuous temperature limit is 150°C (300°F).

Rapp-it can withstand intermittent temperatures up to 250°C (480°F).



RAPP-IT BANDAGE CHEMICAL RESISTANCE

50mm (2") Rapp-it Pipe Repair Bandages were rolled to five layers and submerged in the following chemicals for a period of one month.

IMMERSION TESTING RESULTS

Hydrochloric Acid 30%	Severe discolouration	No softening of bandage
Sulfuric Acid 30%	Slight discolouration	No softening of bandage
Caustic Soda 20% (NaOH 20%)	No colour change	Slightly reduced hardness Bandage maintained integrity
Caustic Soda 50% (NaOH 50%)	No colour change	Slightly reduced hardness Bandage maintained integrity
Ethanol	No colour change	No softening of bandage
Diesel	No colour change	No softening of bandage
Gasoline	No colour change	No softening of bandage
MEK	Slight discolouration	No softening of bandage
Xylene	Slight discolouration	No softening of bandage
Mineral Spirits	Slight discolouration	No softening of bandage
Pure Water	No colour change	No softening of bandage
Acetone	Slight discolouration	No softening of bandage
Toluene	No colour change	No softening of bandage
Nitric Acid 50%	Severe discolouration	Slightly reduced hardness Bandage maintained integrity

Rapp-it Steel Putty is resistant to hydrocarbons, ketones, esters, alcohols, halocarbons, aqueous salt solutions, dilute acids, and dilute bases.



APPLICATION

STEP 1 Shut down pipes or hoses. If pipe cannot be shut down, reduce pressure as low as possible. Apply gloves, then thoroughly clean and roughen the damaged pipe area with a metal file or wire brush. A clean, rough surface helps result in a successful repair.

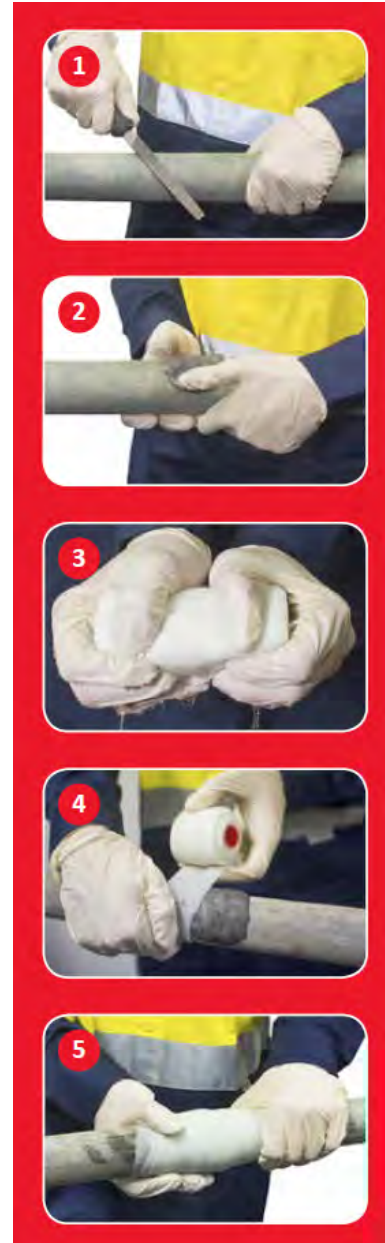
STEP 2 Knead Steel Putty until it is a uniform grey colour. Apply firmly to the damaged area within 2-5 minutes of mixing. It is important to apply the bandage before the putty is cured.

STEP 3 Open foil pouch and soak bandage in fresh water for 10 seconds. Squeeze bandage 1-2 times while in water to help activation.

STEP 4 Quickly wrap the bandage around the damaged area, extending 50mm (2") either side of the leak. Pull each layer tightly and firmly throughout application, using your hand to mould and squeeze the layers together in a tightening motion. A strong, tight repair is very important.

STEP 5 Continue to squeeze the bandage with a rotating motion until resin stops foaming and is set. Allow a minimum of 30 minutes for Rapp-it Bandage to set rock-hard.

All appropriate PPE and safety measures must be followed.
Always adhere to onsite safety policies.
Refer to our SDS for safety information.



24/7 technical advice available.

Online training sessions available upon request.

Please contact our office for specific advice, or visit our website www.piperepair.com.au for further information.