WPA PUR GT500

Technical Data Sheet ISSUED DECEMBER 2021

PRODUCT DESCRIPTION

WPA PUR GT500 is a single component, low viscosity, flexible hydrophilic polyurethane foam injection resin.

FIELD OF APPLICATION

- Sealing cracks in concrete structures through pressure injection.
- Sealing hairline cracks, expansion joints, wide cracks, pipe joints, pipe penetrations.
- In foundations such as diaphragm walls, piling sheets and secant piles.
- Curtain grouting behind tunnel, concrete, brickwork and sewer walls.
- Saturating dry oakum to create a flexible gasket for sealing pipe penetrations, joints and larger defects in concrete structures.

FEATURES & BENEFITS

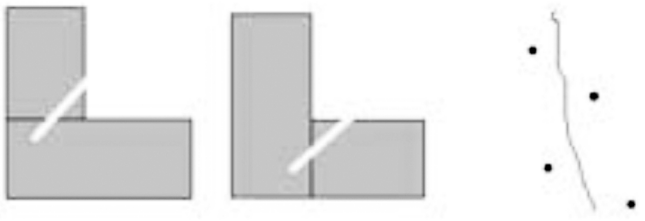
- No catalyst required.
- Tenacious bond to wet concrete.
- High elongation.
- Thin enough to penetrate tight cracks.
- Moderately hydrophilic.
- More Environmentally friendly (Phthalate free).
- Certified NSF 61-5 (Approved Contact with drinking water).

APPLICATION PROCEDURE

Note: the following are a few typical application descriptions. In case of other jobsite parameters, please contact our technical department.

PRELIMINARY ANALYSIS

For leaking joints, identify if the cold joint runs vertically or horizontally. Injection holes must be drilled into the joint at an angle. For leaking cracks, drill the injection holes in a zig-zag pattern around the crack to make sure that the injection hole intersects the crack.



SURFACE PREPARATION

Drill at a 45° angle into the crack or joint. Ideally the injection hole should intersect the joint or crack half way through the thickness of the wall or slab. Blow the dust out of the injection hole with a probe that reaches the back of the hole. Fix a packer of the right diameter into the injection hole.

PRODUCT PREPARATION

Read the technical and safety data sheets prior to commencement of the injection works.

PREPARATION OF THE EQUIPMENT

Depending on the application, injection can be carried out using a hand pump, pneumatic pump or electric pump. Use separate pumps for injection of water and polyurethane resin. Check that the pump is working properly. Prior to injection, the resin pump must be flushed with appropriate pump flush and be completely free of water to prevent pump blockage.

APPLICATION

- Start the injection at the first packer. For vertical joints or cracks this is usually the lowest packer.
- Do not over pressurize while injecting; the correct injection pressure is the pressure that allows the resin to flow into the crack or joint. Avoid injecting at pressures greater than 1500psi (100bar).
- If unreacted resin comes out of the joint or crack, stop the injection and move on to the next packer.
- Always flush the pump out at the end of the day. Resin left in the pump overnight can damage the pump.

REQUIRED TOOLS

Drill and drill bits of appropriate diameter and length. Mechanical Packers of appropriate diameter and length. Injection pump; manual, pneumatic or electric.

CLEANING & MAINTENANCE

After the injection, clean the pump with appropriate pump flush. If the pump will not be used for several days, flush the appropriate pump flush out of the pump with lightweight motor oil or hydraulic fluid and leave it there until the next usage. Never rinse the pump with water. After injection, remove the packers from the concrete and fill the holes with a fast setting cement or any other appropriate filler material.

COMPLIMENTARY PRODUCTS

For certain applications where a faster reaction time is needed a Leak Seal Accelerator can be used. Other products include Pump cleaner, Mechanical Packers, Oakum, and Injection Needles.

ADVICE / FOCAL POINTS

Avoid injecting when temperatures are below -20°C. In extreme cold conditions it is recommended to warm the resin and catalyst. Since WPA PUR GT500 is water-reactive, liquid water must be present.

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WPA WATERPROOFING PRODUCTS AUSTRALIA

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APPEARANCE

Physical Properties @ 25°C - Liquid

Physical Properties - Cured

Property	Test Method	Value
Tensile Strength	ASTM D-3574	2.89 N/mm2
Elongation	ASTM D-3574	350%
Shrinkage	ASTM D1042/ D756	<2%
Tear resistance	ASTM D3574	36N/cm

These properties were based on foam cured under pressure to simulate conditions inside an injected crack. Properties will vary depending on application conditions.

Reaction Times

Reaction	Time
Initial Reaction	30 seconds
Full Rise	1.5 minutes
Full Cure	24 hours

CONSUMPTION

Consumption must be assessed on site and is influenced by the amount of water leaking, thickness of the concrete slab or wall, presence of voids in and around the concrete, etc.

LIMITATIONS:

Low temperatures will increase viscosity making product more difficult to pump. Low temperatures or cold water will slow down the reaction time. PH of reaction water should be between 3 and 10 for optimum foaming. Keep lid tightly closed.

CLEAN UP

Flush injection equipment with the appropriate pump flush product when necessary. Clean off skin with soap and water.

DISPOSAL

Cured material is chemically inert and safe to dispose in landfill. Clean up any spilled liquid resin and place in a suitable sealed container. Dispose of in accordance with applicable environmental regulations.

PACKAGING

WPA PUR GT500 is available in 5 litre and 18.9 litre pails.

STORAGE AND SHELF LIFE

Store between 10° - 26°C.

The minimum shelf life when stored under these conditions is 12 months.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126).

Inhalation

Remove person to fresh air and keep comfortable for breathing. Immediately call a poison centre or doctor. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel.

Acute and delayed symptoms: Fatal if inhaled.

Skin Contact

Remove from skin immediately with soap and plenty of water. Take off immediately all contaminated clothing while washing. Wash contaminated clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. If skin irritation or rash occurs: Get medical advice/attention.

Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching. May cause an allergic skin reaction.

Eye Contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

SEEK IMMEDIATE MEDICAL ATTENTION! DELAYED TREATMENT MAY RESULT IN FATALITY.

Do Not Induce Vomiting. Rinse mouth out with water. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

Notes to Physician

Treat symptomatically.

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WARRANTY CONDITIONS

Bayset Pty Ltd trading as Waterproofing Products Australia (Bayset) offers a limited warranty in respect of this product, subject to certain terms and conditions set out in the warranty documentation which has been made available at www.bayset.com.au. Please contact Bayset directly to obtain a copy of the warranty documentation relevant to this product.

DISCLAIMER

The technical information and application advice given in this Technical Data Sheet is based on the present state of Bayset Pty Ltd's best scientific and practical knowledge and is intended to give a fair description of the product and its capabilities. As the information contained herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness, either expressed or implied, is given other than those required by law. In practice, the substrate and environmental conditions vary widely, making it essential for the user to determine the product's suitability for a particular application and that the product is not used beyond its physical limitations. The user is responsible for checking the suitability of products for their intended use.

*NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Waterproofing Products Australia either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Waterproofing Products Australia, are responsible for carrying out procedures appropriate to a specific application.

DOCUMENT CONTROL	
Product	WPA PUR GT500
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Author	SR

Technical Data Sheets are subject to change without notice.
For latest revision, check website at www.wpa-aus.com.au

This is a CONTROLLED document under WPA's Quality System.

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