# WPA PUR GT103



## Technical Data Sheet ISSUED MAY 2023

### PRODUCT DESCRIPTION

**WPA PUR GT103** is a single-component polyurethane injection resin used to seal gushing leaks, including wide gaps in concrete, where the structure is not subject to movement. This hydrophobic, low viscosity polyurethane reacts with water and expands to form a closed cell, watertight, rigid foam.

### FIELD OF APPLICATION

- Shut off water leaks in concrete, brickwork, and sewers where movement and settlement may occur.
- Water cut-off of water leaks in foundations such as diaphragm walls, piling sheets and secant piles.
- Sealing water-carrying cracks and joints in tunnel segments.

### FEATURES & BENEFITS

- Single component.
- The closed-cell structure of cured polyurethane ensures permanent flexible sealing of cracks and joints.
- Variable reaction times.
- Up to 30x expansion (unconfined).
- Cured polyurethane is flexible, shrink-free and exhibits good chemical resistance (contact our Technical Service for chemical resistance).
- Cured polyurethane is harmless for the environment and resistant to biological attacks.

### 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.

### PRODUCT PREPARATION

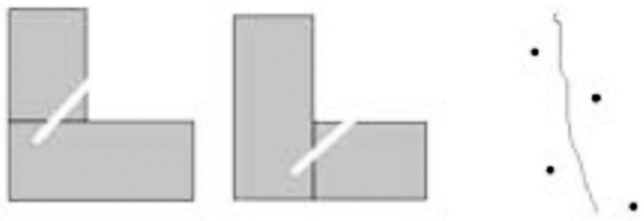
Read the technical and safety data sheets prior to commencement of the injection works.

The gel-time of the product is adjustable by the mandatory adding of a certain percentage of **WPA CAT 103 Catalyst**.

| WPA CAT 103 Mix Ratio | Cream Time (s) | Rise Time (s) |
|---|---|---|
| 10% | 12 | 30 |
| 7.5% | 12 | 47 |
| 5% | 20 | 70 |
| 3.5% | 30 | 80 |
| 1% | 90 | 330 |

### SURFACE PREPARATION

Drill at a 45° angle into the crack or joint. Ideally the injection hole should intersect the joint or crack halfway 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. Where required fix a packer of the right diameter into the injection hole.



### APPLICATION

- Start the injection at the first packer. For vertical joints or cracks this is usually the lowest packer.
- If unreacted resin comes out of the joint or crack, stop the injection and move on to the next packer.

### COMPLETION OF INJECTION

Allow the resin to harden well before removing the packers. After removing the injection packer, the injection hole can be filled with a hydraulic mortar or appropriate repair mortar.

### REQUIRED TOOLS

Drill and drill bits of appropriate diameter and length. Mechanical packers to suit injection cartridges.

### CLEANING & MAINTENANCE

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

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 GT103** is moisture-reactive, moisture must be present.

### APPEARANCE

Physical Properties @ 22°C – Clear Amber Liquid

Viscosity (Brookfield) – 50 ± 20 m.Pas

Physical Properties - Cured

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| Property | Test Method | Value |
|---|---|---|
| Tensile Strength | ASTM D-1623 | 2.8 0.1 N/cm2 |
| Elongation | ASTM D-412 | 3.5% |
| Shrinkage | | 0% |

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

## 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.

## 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 GT103** is available in 20kg pails.

## STORAGE AND SHELF LIFE

Store between 10° - 26°C.

The minimum shelf life when stored under these conditions is 6 months. This product reacts with moisture in the air, so thoroughly reseal containers when not in use.

## CURED PRODUCT

Like all polyurethanes based on aromatic isocyanates this product is not UV stable and will have surface discoloration and degradation if exposed to UV radiation and sunlight. Please speak to our technical consultants regarding your options if this product is required for use in external applications.

## DISPOSAL

**Liquid Systems:** Liquid polyol or isocyanates should be disposed of with an EPA approved industrial waste company which meet all applicable federal, state and local laws and regulations.

**Cured Urethanes:** Fully reacted and cured polyurethanes are inert and can be disposed of as regular landfill.

**Container:** Dispose of decontaminated drums in accordance with all applicable federal, state, and local laws and regulations.

**Do Not Re-use Empty Container.**

**Do Not Cut or Weld Empty Container.**

**WATER CONTAMINATION CAN CAUSES DANGEROUS PRESSURE BUILD UP IN ISOCYANATE DRUMS**

## 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 GT103 |
| **Initial Issue** | May 2023 |
| **Author** | ME |

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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