WPA Injection Hose

Technical Data Sheet ISSUED JULY 2022

PRODUCT DESCRIPTION

WPA Injection Hose is a re-injectable injection hose system, used to seal construction joints in concrete structures against water ingress. **WPA Injection Hose** is used to carry WPA AG200 injection grout along the length of the hose and disperse it into the concrete joint via micro-ports along the hose.

WPA Injection Hose is a highly durable, robust, single channel injection hose system, made from specially formulated PVC materials.

WPA Injection Hose can be flushed*, which allows the system to be re-injectable for the lifetime of the structure. This is a great advantage if movement or shrinkage occurs between concrete joint faces of the structure.

* The ability to flush the system is dependent on the injection resin used. WPA AG200 or micro cements may be flushed from the hose. If polyurethane resins are used, the system cannot be flushed and only one injection is possible.

RECOMMENDED FOR

Construction joints that may require sealing against water ingress or require joint sealing in:

- Basements and below ground structures
- Tunnels and underground vaults
- Water and sewerage treatment plants
- Water tanks and pools
- Suspended slabs and roof slabs

FEATURES AND BENEFITS

- Fast and easy installation, due to its simple connection of accessories
- Low consumption of grouting material due to the optimum inner hose diameter
- Maximum safety features as the grouting processes are performed under low pressure
- Ultimate grouting process performed at 10m intervals between injection ports

GENERAL INFORMATION

WPA Injection Hose has micro-ports equally spaced over its entire circular profile, which provide optimum grouting characteristics. During the injection process, the micro-ports open, allowing the injected material to penetrate the construction joint, resulting in a secure and long-lasting seal of the construction joint.

The design of the micro-ports prevents any infiltration of concrete, silt, or other foreign materials into the injection hose itself. The specially designed micro-ports are designed so they act as valves, allowing the release of material out of the hose but not back into it. After successful injection, the pressure is released, which causes the micro-ports to close. The injection hose can then be flushed out* with clean water and without the threat of any injection material seeping back into the injection hose or water injecting into the joint during the flushing process.

Technical & Physical Properties

- Hose ..... PVC
- Profile ..... Circular with 4 x semi-circular notches
- External diameter..... 13mm
- Internal diameter..... 6mm
- Micro-port length 5mm
- Micro-port spacing 15mm
- Micro-port opening pressure 1bar

Packaging

WPA Injection Hose	30.0 lineal metres per kit
WPA Feeder Hose	2.0 lineal metres per kit
WPA Injection Hose Connectors	8 per kit
WPA Injection Hose Shotcrete Ports	3 per kit
Hose Fastening Clips	200 per kit

Additional Components Available

WPA Injection Hose	120 lineal metres rolls
WPA Feeder Hose	20 lineal metres rolls
WPA Injection Hose Shotcrete Port	Sold Individually
WPA Injection Hose Connectors	Sold Individually
Hose Fastening Clips	100 per bag
WPA Injection Hose End Cap 6mm	50 Per Bag
WPA Injection End Box 100x100mm	Sold Individually

Injectable Materials

- WPA AG200
- Ultrafine Grout (Micro Cements)

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- PU Resin (Single injection only)

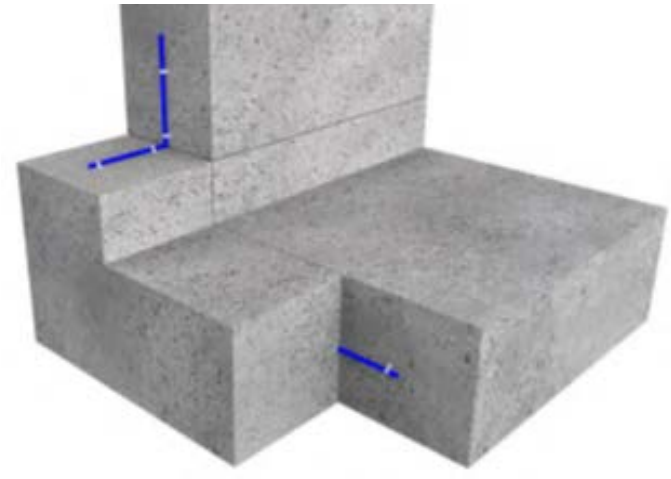
Surface Preparation

The substrate to which **WPA Injection Hose** is fixed, should be uniform and free of dirt and debris. Surface irregularities should be removed and surface damage, cracks, holes and depressions should be made good with a suitable repair mortar. Concrete joint surfaces should have a surface finish that is uniform, dense and smooth.

Installation Process

WPA Injection Hose is generally positioned in the middle of the substrate or in a position with a minimum of 100mm concrete cover from any external edge.

WPA Injection Hose must lay flat on the concrete surface with appropriate hose clamps mechanically fixed to the concrete substrate. Hose clamps should be spaced at 100-150mm centres.



WPA Injection Ports are fixed to the steel reinforcement bars and are visible and accessible after the formwork has been removed.

Coloured PVC Feeder Hose is used to connect the **WPA Injection Ports** to the **WPA Injection Hose** in order to deliver the injection resin to the joint.

The standard installation length of **WPA Injection Hose**, between injection ports is 10 metres. This will help achieve an ultimate injection process.

Where the hose ends overlap, a parallel overlap of 150mm is required, with the two hoses laid parallel to each other with a 30-50mm gap between the two parallel hoses.

For improved performance, it is recommended that two rows of **WPA Injection Hose** are installed where the concrete thickness is greater than 1metre.

Injection Process

The concrete should be cued for a minimum of 28 days prior to the first injection.

Check the continuation of the hose by flushing with water or pressurising with air.

The hose is injected via the injection ports until traces of the injected materials are discharged from the vent on the opposite end of the hose.

The vent end must be closed by installing an injection nipple as soon as the injected material flows freely ensuring no air pockets are trapped in the injection hose.

The flow of the injection material in the concrete joint can be monitored during the injection process by utilising the injection pump's pressure gauge.

Continue the injection process until a constant pressure has been reached. The achievement of a constant pressure indicates the concrete joint is unable to absorb any further injection material, therefore signalling the end of the injection process.

Injection material left within the injection hose is simply flushed out with clean water*. Minimal pressure is required, and it is simple and easy to achieve. On completion of the flushing process, the injection hose is ready for future re-injections, if required.

With correctly designed and well compacted concrete, a typical construction joint of 250 mm section will receive approximately 0.25-0.5 litres of resin per linear metre of hose.

Life Expectancy

Undamaged **WPA Injection Hose**, and the resin injected into the system, if specified and installed in accordance with the product data sheets, and only to those substrates confirmed within, have a service life that can be equal to the design life of the structure.

Cleaning

Clean the pump and equipment as directed by the data sheet of the resin used.

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LIMITATIONS

Do not apply **WPA Injection Hose**:

- Over contaminated substrates.

Not compatible with solvent based materials, e.g. solvents, adhesives, sealants or coatings. **WPA Injection Hose** must never be flushed with solvents such as Xylene, MEK or Toluene. Only water may be used to flush **WPA Injection hose*.**

For further information about this product contact the WPA Technical Department.

Shelf Life

Store the hose and ancillaries in dry conditions, not in contact with sunlight and protected from mechanical damage.

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 Bayset Pty Ltd (trading as 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	
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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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