

Technical Data Sheet ISSUED DECEMBER 2023

PRODUCT DESCRIPTION

WPA 3400 is a two component, 100% solids, rapid curing, spray applied, hybrid polyurea, elastomeric waterproofing membrane. WPA 3400 is comprised of a polyether polyol, amine chain extender and MDI based isocyanate.

WPA 3400 rapidly cures to form a high performance seamless, tough, durable, elastomeric waterproofing membrane, with good crack bridging properties. WPA 3400 has excellent adhesion to most suitably primed building substrates and is suitable for above and below ground applications.

Recommended for:

- Podiums
- Roofs
- Retaining Walls
- Planter Boxes
- Water Tanks

FEATURES AND BENEFITS

- Class III membrane in accordance AS 4654.1
- Rapid reactivity and curing time
- Almost immediate return to service
- Permanently flexible
- Good chemical resistance
- 100% solids
- Excellent durability and abrasion resistance
- Mercury free

APPLICATION PROCEDURE

Substrates

WPA 3400 is suitable for concrete, render, screeds, masonry block, steel and PAA certified exterior grade plywood.

Substrate Preparation

All surfaces to be waterproofed must be firm, clean, dry, sound and smooth. All laitance, grease, oil, wax, curing compounds, loose material, paint and any other contaminants which may reduce or prevent adhesion must be mechanically removed. Grinding, scarifying or shot blasting may be required to achieve an open, textured surface.

Masonry surfaces must be pointed flush and surface defects repaired. Repairs must be carried out using an appropriate concrete repair mortar.

New concrete must be cured for minimum 28 days. Render and cement screeds must be cured for minimum 7 days. Damp concrete render or screeds must be allowed to thoroughly dry.

The substrate temperature should be a minimum of 10°C to achieve good adhesion. For substrate temperatures below this, consult WPA Technical Department.

Static Crack Treatment



For cracks greater than 2mm, clean cracks thoroughly before filling with WPA FC sealant.

WPA 3400 cannot span gaps. For dynamic cracks/expansion joints and control joints, the use of WPA Elastoband or WPA Butyl Tape system is recommended. Contact the WPA Technical Department for further advice.

Priming

Substrates must be primed with WPA 560 Moisture Seal or WPA 3460 primer.

Metal surfaces must be prepared by blast cleaning and primed with an appropriate metal etch primer. Contact the WPA Technical Department if there is any doubt about the suitability of substrates.

Component Preparation

POLYOL should be mixed each day prior to use as the components can separate out overnight. It should also be mixed after extended breaks, such as lunch breaks. Please do not over mix as the aeration will reduce the physical properties of the resultant elastomer.

ISOCYANATE does not need to be mixed prior to use.

It is recommended that both components are preconditioned to 22-25°C to ensure that the system has consistent reactivity and performance. The drums must be above 10°C before spraying.

Application

WPA 3400 must be applied in accordance with the applicable provisions of the National Construction Code.

WPA 3400 a fillet is required at all horizontal and vertical transitions. Install the fillets using WPA FC sealant.

Prior to application, confirm substrate temperature and moisture content, relative humidity and dew point.

WPA 3400 can be applied in temperature of up to 35°C.

BEWARE OF CONDENSATION!

The substrate temperature must be at least 3°C above dew point to reduce the risk of de-lamination due to condensation.

Apply WPA 3400 using a plural component, heated, proportioning spray equipment as those manufactured by Graco®, Wiwa®, Gama, Isotherm, Reaku or any other suitable equipment producer.

The proportioning equipment utilised must be capable of supplying correct pressure and heat for the appropriate hose length on a consistent basis.

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Machine Settings

Mixing: 1:1 by volume.

Dynamic Spray Pressure: > 2000 psi.

(**Note:** this is Gun type / setup / output dependent)

Primary Heater Temperatures: 65°C.

(set both Component temperatures the same) Hose

Temperature: as per Primary Heater setting.

Apply WPA 3400 so that a minimum dry film thickness of 1.5mm (1500 microns) is achieved.

WPA 3400 should not be applied in windy conditions due to potential application losses, possible contamination of surrounding areas / surfaces from wind-borne spray and the lack of application control resulting in variable applied thickness and surface evenness / irregularities.

Note: The use of personal protective equipment (PPE) is mandatory.

Performance Data and Physical Properties @22°C

Polyol	
Appearance	Clear pale straw liquid
Specific Gravity	1.04 +- 0.02 g/ml
Brookfield Viscosity (22°C)	600 +- 200 mPa.s
Brookfield Viscosity (65°C)	75 +- 30 mPa.s

Isocyanate	
Appearance	Clear yellow liquid
Specific Gravity	1.13 +- 0.02 g/ml
Brookfield Viscosity (22°C)	500 +- 100 mPa.s
Brookfield Viscosity (65°C)	120 +- 30 mPa.s
Gel Time	12 +- 2 seconds
Cure Time	10 +- 5 minutes

Test	Method	Specification
Hardness (Shore A)	ASTM D1737	80 +- 5
Solid Density	N/A	1.10g/ml
Tensile Strength	ASTM D412	15+- 5 N/mm ²
Elongation	ASTM D412	>300%
Tear Strength	ASTM D624 (Die C)	50N/mm
Taber Abrasion	ASTM D4060	220mg loss
Water Absorption	ASTM D471	<1% @ 24hrs

LIMITATIONS

Do not apply **WPA 3400:**

- Over damp, wet or contaminated substrates;
- If it is raining or if rain is imminent;
- Directly over any existing coatings;
- As an exposed membrane. WPA 3400 ATC must be applied as atop coat;
- In water tanks containing potable water. Use WPA 3400 PW
- To areas subject to negative hydrostatic pressure or rising damp.

Clean Up

Avoid spills. Equipment should be immediately cleaned with Xylene Solvent. Hardened or cured material can only be removed mechanically.

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 CAUSE DANGEROUS PRESSURE BUILD UP IN ISOCYANATE DRUMS

Packaging

WPA 3400 is available in 42kg or 420kg kits.

Coverage

1.65 kg (1.5 litre) of WPA 3400 will cover approximately 1M² at 1.5 mm coating thickness. Allow for processing losses, over-spray, etc.

Storage and Shelf Life

POLYOL should be stored in closed containers under dry conditions out of direct sunlight between 18 and 25°C.

ISOCYANATE should be stored separately from the polyol component, but under the same conditions.

Both products will have a minimum shelf life of six months when stored under these conditions.

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SAFETY INSTRUCTIONS

For instructions on the safe use of WPA 3400 please refer to the latest version of the Safety Data Sheet available from our website www.wpa-us.com.au.

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	
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Author	SR

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