

# hydraguard<sup>PRO</sup>

One component, high elasticity, polyurethane liquid membrane



## DESCRIPTION

HYDRAGUARD Polyurethane Membrane is a one component, low odour, thixotropic, high tensile polyurethane liquid ideal for applications where rheology is very important.

HYDRAGUARD Polyurethane Membrane is a rapid curing material that displays tack free time of less than 4 hours.

It cures with the humidity in the atmosphere to produce a highly elastic membrane with strong adhesion to many types of surfaces. Being thixotropic, it can easily be applied on vertical surfaces without running.

It is based on pure, elastomeric, hydrophobic, polyurethane resin, which results in excellent waterproofing properties.

Apply with brush, roller or airless spraying in one or two coats with minimum total consumption of +/- 1.5 kg/m<sup>2</sup>.

## COMPLIANCE

Exceeds the requirements of ASTM C836-95, AS/NZS 4858:2004, AS 3558.-1999, ASTM E96.

## RECOMMENDED FOR

- roofs
- wet areas
- podiums and balconies (under tile)
- sloped and vertical surfaces
- planter boxes
- basements
- foundations (not a humidity barrier)

## LIMITATIONS

Not recommended for:

- Unsound substrates (in some cases, application is possible with the use of geotextile reinforcement; please contact our technical department for consultations).
- Waterproofing of swimming pool surfaces in contact with chemically treated water.
- Damp or contaminated surfaces.

For exposed use, a protective topcoat of POLYGUARD is recommended in order to maintain long-term solar reflectance and better colour protection.



3A Bellfrog Street  
Greenacre NSW 2190

[www.polybit.com.au](http://www.polybit.com.au)



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One component, water based Fully Aliphatic Polyurethane Coating

## FEATURES & BENEFITS

- Thixotropic: Easily applied on vertical or sloped surfaces and complex shapes without running or bubbling.
- Excellent adhesion on almost any type of surface, with or without the use of special primers.
- No thinning is required but SOLVENT may be used.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80°C.
- Resistance to cold: The film remains elastic even down to -40°C.
- Excellent mechanical properties.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.
- Class 3 membrane allows for high flexibility and movement.

## APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15 MPa
- Humidity: W ← 10%
- Temperature: 10-30°C
- Relative humidity: ← 85%

Primer selection for special conditions and substrates: Please refer to the Primer Selection Table.

## PRIMER SELECTION TABLE

Please consult Polybit's technical department for further recommendations

SUBSTRATE	Recommended PRIMER
Porous substrates such as; <ul style="list-style-type: none"><li>• Concrete, Villaboard, bricks, Besser Blocks, Cement sheeting, etc.</li></ul>	<ul style="list-style-type: none"><li>• Polyprime</li><li>• Hydraprime</li><li>• Hydrapoxy</li></ul>
PVC substrates	<ul style="list-style-type: none"><li>• PVC prime</li></ul>
Metal substrates	<ul style="list-style-type: none"><li>• METAL prime</li></ul>
Other non-porous substrates (consult the POLYBIT technical department)	<ul style="list-style-type: none"><li>• Hydraprime</li><li>• Hydrapoxy</li></ul>

## APPLICATION PROCEDURE

Surfaces must be clean, dry and free from contamination such as dust, grease, oil release agents and other contaminants.

Moisture content in the concrete must be below 4.5% measured using appropriate moisture meters. All surface imperfections, and non structural cracks should be repaired prior to any membrane application.

**Priming:**  
Apply the required primer following the guidelines above.

## CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT. Rollers will not be re-usable.



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## CONSUMPTION

Minimum consumption (horizontal): +/- 1.5 kg/m<sup>2</sup>

Minimum consumption (vertical): +/- 0.8 kg/m<sup>2</sup>

### MINIMUM THICKNESS

1.2mm WFT

1.0mm DFT

## PACKAGING

25 kg

## SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25°C. Once opened, use as soon as possible.

## PRECAUTIONS

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

## WARRANTY

Polybit Waterproofing Systems products are manufactured very rigid quality standards and guarantees the performance of Hydraguard when the following applications are followed.

- Applied to adequately prepared and structurally sound surfaces
- All tiling installed in accordance with AS3958
- All waterproofing membrane installed in accordance with AS4654 and AS3740
- All relevant requirements of NCC
- Polybit Waterproofing Systems TDS or other written instructions

Polybit Waterproofing Systems Will warrant its products for 10 years from time of application. If any product that have been applied in accordance with its specific data sheet or with Polybit Waterproofing Systems written instructions that have been proven faulty or defective, Polybit Waterproofing Systems will replace product free of charge and cover labor of original installation.

### Durability of Hydraguard membrane: Elongation to break (Strain %)

Control	1112%
Heat Ageing @ 50 °C	1115%
Water Immersion	1201%
Bleach Immersion Detergent	1333%
Immersion	1463%



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## TECHNICAL SPECIFICATIONS

In liquid form (before application): ~89% solids content.

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	2,000-4,000
Specific weight	gr/cm <sup>3</sup>	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.450-1.55
Flash point	°C	ASTM D93, closed cup	→42
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	2-4
Recoat time	hours	-	4-24

The cured membrane:

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	70
Tensile strength at break @ 23 °C	Kg/cm <sup>2</sup> [N/mm <sup>2</sup> ]	ASTM D412 / EN-ISO-527-3	→40 [→ 4]
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	→ 600
Water vapor transmission	gr/m2.hr	ASTM E96 (Water Method)	0.8
Adhesion to concrete	kg/cm <sup>2</sup> [N/mm <sup>2</sup> ]	ASTM D4541	→ 20 [→ 2]

### DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Polybit Waterproofing Systems products, are given in good faith based on Polybit Waterproofing Systems current knowledge and experience of the products when properly stored, handled and applied under normal conditions.

It is your responsibility to ensure that our products meet your requirements, are used and handled correctly in accordance with any applicable Australian Standard, our instructions and recommendations and only used for the applications for which they are intended.

In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

We also reserve the right to update information without prior notice to you to reflect our ongoing research and development.

The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with these.



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