



**DAYSON<sup>®</sup>**

***PU WATER***

**POLYURETHANE LIQUID MEMBRANE**



## DAYSON | PU WATER

Dayson PU Water is a highly reflective two-component water-based, polyurethane membrane suitable for all exposed horizontal and vertical waterproofing applications.

Dayson PU Water is a unique water-based membrane with outstanding waterproofing characteristics and excellent adhesion to a wide variety of substrates. Inopaz H2O is applied as a thick coating in a minimum of two passes by brush, roller, squeegee or airless sprayer.

Dayson PU Water has been tested for use with potable water in accordance with the Australian standard method AS / NZS 4020.

Dayson PU Water can be applied over existing built-up and single-ply roof membranes to extend the life of an existing roof, and to enhance the Solar Reflective Index (SRI) of the roof.



- ❖ A complete liquid waterproofing system for a wide variety of applications.
- ❖ Fast application in a single or two coat system
- ❖ Seamless
- ❖ Resistant to standing water
- ❖ High UV resistance, Solar Reflectivity & Infrared Emissivity.
- ❖ Resistant to bacterial attack
- ❖ Resistant to algae and fungi
- ❖ VOC free can be colored to match any color
- ❖ Excellent bonding substrate for thinset
- ❖ May be reinforced to enhance durability

### Product Uses and Applications

#### Waterproofing

- ❖ New roofing
- ❖ Water tanks
- ❖ Swimming pools
- ❖ Balconies and verandas
- ❖ Plaza decks
- ❖ Water features
- ❖ Coating of existing roofs

#### Dayson PU Water can be applied over the following Substrates:

- ❖ Concrete
- ❖ Built-up Membranes
- ❖ Aluminum and Galvanized Steel
- ❖ Single-ply Roofing
- ❖ Spray Polyurethane Foam
- ❖ Wood



WATERPROOFING  
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## General Instructions

- ❖ All substrates must be sound, free from dirt, dust, loose debris, grease, and free from cracks greater than 1.5mm and all dynamic cracks must be reinforced.
- ❖ Dayson PU Water, is applied by brush, roller, squeegee, or airless sprayer
- ❖ Dayson PU Water can be applied to horizontal and vertical surfaces
- ❖ Some substrates must be primed with a proprietary primer prior to application of Dayson PU Water
- ❖ Apply Dayson PU Water in minimum two layers to create a dry thickness of 40 mils (see thickness chart below).
- ❖ Dayson PU Water should not be applied if rain is anticipated within 8 hours.
- ❖ Application will tolerate foot traffic in 4 - 6 hours, depending on temperature and is completely cured in a maximum of 5 days
- ❖ Dayson PU Water may be applied at an ambient temperature range of +5°C to 40°C.
- ❖ Avoid freezing temperatures or excessive moisture on the material before complete cure.

## Instructions for use

### Surface Preparation:

- ❖ All substrates must be sound, free from dirt, dust, loose debris, grease, and free from cracks greater than 1.5mm and all dynamic cracks must be reinforced.
- ❖ All cracks that are dynamic and that are greater than 1.5 mm, shall be routed and filled with a one-part self-leveling polyurethane sealant.
- ❖ Temporarily remove all conduits, pipes, etc, that may impede the application of a complete waterproofing layer.
- ❖ Application on concrete: surface has to be prepared in accordance to SSPC NACE 13, The material has to be reinforced with a nonwoven geotextile approved by Dayson/ geotextile AVG 180 g/m<sup>2</sup>.
- ❖ Prior to application, test the substrate for adhesion.

### Primer Preparation:

To prime the surface, apply Dayson Epoxy Primer as follows:

- ❖ Mix Component A with a paddle until a homogenous mixture is achieved. Paddle at 250 – 300 RPMs. While mixing, primer temperature should be below 30°C and should be mixed at an ambient temperature between 15 and 30°C.
- ❖ Mix Component A for two minutes.
- ❖ Pour the content of Component B into the container of Component A ensuring that the entire content of Part 'B' has been added.
- ❖ Mix the two materials for two minutes.
- ❖ While mixing at slow speed, add 10 L of potable water to the combined two part liquid mixture for an additional 2 minutes.
- ❖ Allow the material to rest for ten minutes.
- ❖ Mix for an additional 2 minutes.

### Primer Application:

- ❖ Dayson Epoxy Primer may be applied by brush, roller, or airless sprayer
- ❖ Apply primer at a rate of 100 – 300 gr/m<sup>2</sup> (0.24-0.71 gal/100 sq. ft.)
- ❖ Avoid application of excess material. Over application will create a glossy surface.





## Application of Dayson PU Water



- ❖ a. Inspect substrate to ensure compliance with Dayson requirements.
- ❖ b. Paddle Part 'A' for one minute at 250 – 400 RPMs
- ❖ c. Add part 'B' to Part 'A' ensuring the entire content of Part 'B' has been added. Paddle for two minutes ensuring complete mixture of the two components..
- ❖ d. Do not dilute Dayson PU Water with water.
- ❖ e. Apply Dayson PU Water with a roller, brush, squeegee, or airless sprayer to form an even 2.85 mm (114 mils) wet mils of liquid onto the substrate. The liquid membrane will dry to 1.5 mm (60 mils).
- ❖ When a reinforcing non-woven fabric is used, apply a thin coat of membrane to the substrate. Apply the reinforcing fabric onto the wet layer of Dayson PU Water and fully impregnate the fabric with additional quantity of Dayson PU Water until the reinforcing fabric is fully encapsulated. The fabric should be fully covered, ensuring that no fabric texture is being showed above the surface.
- ❖ Allow the membrane to cure for 4 – 6 hours before any foot traffic. A full cure will take five days.
- ❖ Apply Dayson PU Water with a roller, brush, squeegee or airless sprayer - to the following minimum dry thickness in two-three applications (depending on application method). Each application shall cure for minimum four hours prior to the application of an additional coat. If primer has been applied, the primer coat shall be fully dried prior to application of Dayson PU Water.

| Substrate        | Dry layer       | Wet layer         |
|------------------|-----------------|-------------------|
| Metal            | 1mm (40 mils)   | 1.9 mm (76 mils)  |
| Concrete         | 1.5mm (60 mils) | 2.8 mm (114 mils) |
| Built-up Roofing | 1.2mm (48 mils) | 2.3 mm (91 mils)  |
| Single-Ply       | 1.2mm (48 mils) | 2.3 mm (91 mils)  |

- ❖ Spray applications can be achieved in a two-pass application.
- ❖ Roller application will require a minimum of three applications.

## Packaging

Dayson PU Water, is available in the following packages:

- Set - 21 Kg :** Component A: 20 Kg Pail  
Component B: 1 kg Can
- Set - 5 Galon :** Component A: 4.73 gallons pail (23.45 Kg)  
Component B: 0.27 gallons can ( 1.17 Kg)



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**Technical properties:**

| DESCRIPTION  | PROPERTY                               |                   | STANDARD    |
|--|--|-------------------|-------------|
|  | Component A                            | Component B       |             |
| Appearance   | White*                                 | Transparent Paste |             |
| Specific Gravity   | 1.31                                   | 1.15              |             |
|  | Combined Product Specific Gravity: 1.3 |                   |             |
| Solid Content  | > 64%                                  | 100%              |             |
| Mixing Ratio by Weight   | 20                                     | 1                 |             |
| Pot Life @ 77°F or 55% RH  | 3 hours                                |                   |             |
| Tack Free Time @ 77°F or 55% RH  | 6 hours                                |                   |             |
| Coverage   | 2.0-3.0 kg/m2 (3.5-5.3 gal/100 sq. ft) |                   |             |
| Dry film thickness   | 1.0-1.5 mm (40-60 mils)                |                   |             |
| Application Temperature  | 5-40°C                                 |                   |             |
| Heat Stability   | > 120°C (> 248°F)                      |                   | ASTM D 2939 |
| Cold Flexibility, Pass   | < -17 °C (< 1.0 °F)                    |                   | ASTM D 522  |
| Hardness, Shore A  | 45-50 shore A                          |                   | ASTM D 2240 |
| Tensile Strength   | >3.0 Mpa (426 psi)                     |                   | ASTM D 412  |
| Elongation at Break  | >200%                                  |                   | ASTM D 412  |
| Resistance to Water Pressure   | 0.5 atm, 24 hr<br>7.35 psi, 24 hr      |                   | DIN 52123   |
| Tear Resistance  | 130 N/cm (76 lbf/in)                   |                   | ASTM D 624  |
| Solar Reflectance  | 80%                                    |                   | ASTM C1371  |
| Infrared Emittance (Emissivity)  | 85%                                    |                   | ASTM C 1371 |
| Adhesion (Dependant on substrate and primer.<br>Contact Technical<br>Department for laboratory and field data) |  |                   | ASTM C 794  |
| Cool Roof  | Init SRI=114 3 yr. SRI=pending         |                   | ANSI/CRRC1  |

\* Material may be colored to meet project conditions.





## Storage

1. Store product in unopened containers in clean, dry conditions. Protect from extreme temperatures. Store under cover and out of direct sunlight.
2. Stored material should be kept over 10°C (50°F) and below 35°C. (95°F) 3.
3. Avoid freezing temperatures during handling and storage.
4. Dayson PU Water has a shelf life of 1 year.

**Note :** Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

## Precautions

- ❖ Do not apply Dayson PU Water during rain or when rain is imminent within 24 hours from application.
- ❖ Do not apply Dayson PU Water when dew accumulation on the applied material is expected within 24 hours from application.
- ❖ High traffic applications should always include reinforcement
- ❖ Condensation and other rooftop liquids should be captured and directed to internal drains
- ❖ The material should not be applied where direct contact with cooking oil from ventilation systems is expected.

## Warranty :

Dayson's products are manufactured to rigid standards of quality. Dayson makes no representations or warranties with respect to the accuracy or completeness of the contents of this publication and reserves the right to make changes to specifications and product descriptions at any time without notice. Users must always refer to the most recent issue of the local product data publication for the product concerned. The user of the product must test the product's suitability for the intended application and purpose. Due to differences in materials, substrates and site conditions Dayson assumes no liability whatsoever, and disclaims any express or implied warranty, relating to its products including but not limited to, the implied warranty of merchantability, fitness for a particular purpose, nor any liability arising from any legal relationship.

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