



POWERPROOF PU-D

ONE-COMPONENT POLYURETHANE DISPERSION WATERPROOFING MEMBRANE

DESCRIPTION

Powerproof PU-D is a single-component, ready-to-use, solvent-free, permanent and highly elastic waterproofing membrane. Once cured, it provides a tough membrane able to withstand a continuous cycle of weathering and prevents water leakage.

FEATURES AND BENEFITS

- UV-stable
- Paintable with water-based paint
- Fast-curing
- Easy to apply
- For indoor and outdoor application
- Highly and permanently elastic membrane
- Highly compatible to porous substrates, i.e. concrete, fibre-cement board, etc.
- High water resistance
- Seamless and monolithic
- Crack-bridging capability up to 2mm

SURFACE PREPARATION

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull strength of 1.5 N/mm². Substrate moisture should not exceed 5% (use moisture meter or polyethylene test in accordance to ASTM D 4263). New concrete structures need to dry for at least 28 days.

The substrate must be clean and free from all traces of loose materials, old coatings, curing compounds, release agents, laitance, oil, grease, etc. It should be saturated-surface-dry (SSD) condition. Structurally unsound layers or surface contaminants must be mechanically removed by abrasive blast tracking, shot blasting, scarifying, or grinding. Substrates heavily impregnated with oil must be cleaned by torching, using suitable solvent or degreaser substance. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. All ducts, loose and friable material must be completely removed from all surfaces, preferably by brush and/or vacuum, before application of product. Substrate moisture should be at most 5%.



- Concrete slab must be minimum of 4 weeks old.
- Minimum substrate temperature +5°C.
- Maximum substrate temperature +35°C.
- Maximum air humidity 85% r.h.
- Observe dew point temperature
- For best result, maximum thickness of **Powerproof PU-D** is 0.5 mm dry film thickness per coat.
- Newly applied surfaces should be protected from water for a minimum of 24 hours.

For New Construction:

(Exposed-type roof deck application)

1. For a well-prepared and mechanically sound concrete slab, apply necessary concrete topping, screed or self-leveling compound to attain desired slope-to-drain surface level. For areas with a thickness below ½ inch, apply **Bostik Powerfix** as adhesion enhancer (see the separate TDS for more information).
2. Anticipate cold joints during screeding/topping pouring. With these joints, create a V-cut profile using concrete



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grinder or router with the size of approximately 2 inches on both edge, diagonally.

3. Apply Bostik PU sealant (e.g. Seal n' Flex 1) to fill completely the V-cut profile, about 1.5 inches in depth. Once the sealants is cured, create a strip of 25 wet mils **Powerproof PU-D**, 3 inches on each side.

AREAS OF APPLICATION

For Exposed Areas:

- Roof Deck
- Balcony
- Terraces
- Canopy
- Facade
- Firewall
- GI Sheet roofing - to prolong its service life
- Suitable for use in potable water storage tanks
- Can be used without topping for zero to light traffic areas

For Concealed/Buried Areas:

- Buried waterproofing of roof slabs, balconies, and terraces
- Undertile waterproofing of wet areas such as toilets, bathrooms and kitchens

MIXING RATIO

Ready-to-use; no need to add water, cement or any powder

METHOD OF APPLICATION

- All detailing procedure should be in accordance to Bostik methodology. Consult Bostik Technical Department prior to full surface waterproofing application
- **Powerproof PU-D** has to be stirred well with an electrical mixer for 2-3 minutes before application
- When the product becomes homogeneous, stand it for 1-2 minutes. Apply the product using brush or roller until the surface is fully covered
- It is necessary to have at least 2 coats. Assure that the total dry film thickness should be at least 1-1.5 mm.
- Apply second coat perpendicularly on the first coat
- Allow 1-3 hours drying time (depends on substrate and ambient condition) prior application of second coat (not later than 24 hours)
- For roof deck application, requires primer, use Powerfix.

To apply **Powerproof PU-D**, dry film thickness should be maximum 0.5 mm per coat. At least 3 coats to achieve 1.5 mm **Powerproof PU-D** dry film thickness.

• For G.I. sheet roofing, requires priming to enhance adhesion to metal roof, use Powerfix. Apply a single coat before standard **Powerproof PU-D** at minimum 2 coats. Assure that the total dry film thickness should be at least 1-1.5mm

No dilution required. Do not mix with water to ensure optimum performance.

Application for concealed or buried areas will require the following:

- 2mm to 10mm concrete topping - use **Bostik Ultralevel SL** (self-levelling compound); refer to separate TDS
- 10mm to 20mm concrete topping - use **Bostik Powerfix**

SPECIFICATIONS

Color	White & Gray
Adhesion to concrete	>1.2 N/mm ²
Shore A Hardness	>40
Crack Bridging	Up to 2 mm
Elongation at Break	Up to 400%
Specific Gravity	1.35 kg/L
Solid Content	At least 60%
Toxicity	Non-toxic
Flammability	Non-flammable

TOOLS

Paint Brush or Roller.

PACKAGING

Available in 4 liters and 16 liters plastic pails

STORAGE

- Protect from water and adverse weather conditions.
- Keep dry and cool on wooden pallets at between +10°C and +25°C in moisture-free conditions.
- The opened products should be closed immediately and consumed first.
- Maximum 3 buckets should be stocked on each other.



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CLEAN UP

Powerproof PU-D can be cleaned with water during wet state or mechanically remove when fully cured. All tools and materials can be washed out with water prior to cured state.

COVERAGE

16L pail of **Powerproof PU-D** will cover 8-10 sqm at 1 mm dry film thickness assuming surface is flat and SSD condition (at least 2 coats)

4L pail of Powerproof PU-D will cover 2-3 sqm at 1 mm dry film thickness assuming surface is flat and SSD condition (at least 2 coats)

Can be applied up to 500sqm for zero to light traffic areas

SHELF LIFE

Twelve (12) months if stored in a dry place and not under direct sunlight, conditional to complying with the above-mentioned storage conditions.

P.A.T.S (Pre-tested Adhesion To Substrate) Programme

Bostik offers a service in which a program has been established to eliminate potential field problems by pre-testing Bostik adhesives with samples of building materials to which the adhesive will be applied.

This service is available on large projects where pre-application testing will aid in determining the proper surface preparation method to achieve optimum adhesion. Consult a Bostik representative for further information.

HEALTH AND SAFETY

This product is not classified as Dangerous Good or Hazardous Substance according to ADG Code and work safe Australia, respectively. The product however, should be used in accordance with good occupational, health and safety practices. May cause irritation if swallowed, moderately irritating to eyes. Repeated or prolonged skin contact may lead to irritation. High concentrations of vapor may irritate respiratory tract. Releases methyl ethyl ketoxime (MEK) until fully cured. Do not swallow and avoid contact with skin as this may cause sensitization. If contact with eyes occurs, wash eyes with copious quantities of water and consult a doctor if irritation persists. For more details, refer to the Material Safety Data Sheet.

DISCLAIMER:

The information in this Technical Data Sheet is intended for the assistance of users and is of a general nature. It reflects the extent of our knowledge and experience of our products and is based on tests, which we believe to be reliable. However, no guarantee of accuracy can be given due to the wide range of surfaces, environmental and field conditions and variations encountered in raw materials, manufacturing equipment and methods at the place where the work is performed. Some of these will be beyond our knowledge and control. Users are asked to make sure that the TDS in their possession is the latest issue. Likewise, we recommend users carry out their own tests to determine the suitability of the product for their particular purposes.

Any claim for a defective product must be filed within 30 days of discovery of a problem and must be submitted with written proof of purchase. Claims are not transferrable or assignable and extend only to the original purchaser/user. Bostik reserves the right to inspect alleged failure and no responsibility will be accepted unless Bostik is given the opportunity to do so. Bostik limits its liability to the replacement of the product/s proven faulty.