

## BONDIT PU 1K

*(Single component polyurethane waterproofing coating)*

### PRODUCT DESCRIPTION

Bondit PU 1K is a single pack, water based elastomeric, liquid applied polyurethane coating for waterproofing of concrete surfaces. This product exhibits excellent moisture resistance, and prevents water, and salts penetration into concrete and masonry surfaces.

### FEATURES & BENEFITS

- Has crack bridging ability, flexible and non-toxic.
- Liquid applied membrane that provides seamless coating when applied using roller, brush or spray.
- Superb bonding to different substrates and building materials.
- Very high tensile strength and excellent resistance to chlorides, chemicals and alkalis.
- Excellent resistance to humidity and temperature.
- Resists positive water pressure.
- Low odour and UV resistant so applicable to exteriors.
- Economic as applicable to both external and internal areas
- Dries very fast and is ready for recoating in 3-5 hours.
- Compatible with many cement-based tile adhesives.

### AREA OF APPLICATION

- Bondit PU 1K protects against water leakage and penetration of moisture into the concrete and other masonry surfaces.
- Suitable for application on many porous substrates like Gyprock, render brickwork, fibre cement, and plasterboard.
- Used for waterproofing retaining walls, sunken slabs, kitchen, terraces, balconies, bathrooms podium, shower recesses, bridges, inspection pits, ground and suspended floors and swimming pools.
- It provides a seamless and continuous membrane when applied to the substrate.

### APPLICATION INSTRUCTIONS

#### *Surface preparation*

- Surface should be cleaned with wire brush followed by vacuum cleaning to make the surface free of any loose particles, dust, grease, laitance, mould release agents and curing compounds.
- All new concrete surfaces should be fully cured (8 weeks) with appearance of rough surface.
- Rendered surfaces should be cured atleast 7 days prior to the waterproofing process.
- All cracks to be treated with Bondit Bond Repair SBR and water jet should not be used.
- Surface is allowed to self-cure for 24 hours. Before priming make sure that the surface is free



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from moisture.

- Horizontal and vertical angle joints should be packed using concrete admixed with Bondit IWP1.
- All surfaces should be levelled with a slope variation of not more than 4 mm.
- **Gypsum/ Plasterboard sheets**- Its joint should be covered with 50 mm wide PP tape while the nail heads should be sealed with epoxies. If used as a wall substrate sheet thickness should be atleast 10 mm thick.
- **Fibre Cement Sheet**- If used as a wall or floor underlay sheets, it should have a minimum thickness of 6 mm. Compressed fibre cement sheet when used in walls should have a minimum thickness of 9 mm and for floors thickness should be 15 mm.
- **Metal Surfaces**- The surfaces should be corrosion free and hairline cracks if any should be filled with suitable gap filler.

### Priming

- Bondit PU Primer is recommended before application of Bondit PU 1K.
- Apply the PU primer on the prepared surface using brush, roller or squeezer. Allow it to dry.
- For metal surfaces it should be primed with appropriate water-based primer.
- Apply the first coat of waterproofing coating Bondit PU 1K when the primer is dried.

### How to apply

- Before the application, mix the contents of the container properly using a slow speed stirrer.
- Make sure to scrape the sides and bottom of the container with the mixer.
- Do not dilute the product with solvent, thinners, water at any time.
- Apply Bondit PU 1K over the tacky primer maintaining uniform and continuous coating thickness.
- It can be spray applied with airless spray machine or roller. A brush may be used for areas unsuitable for roller application.
- The product must be applied all along the angle, corners, pipes joints etc.
- Apply the coating on surrounding walls and always apply two coats in order to avoid pinholes.
- Before applying the second coat, glass fibre mesh can be laid on the first coat when wet and extended to the adjacent wall at a height of 200-300 mm for better reinforcement and avoid any leakage from the joints.
- Apply the second coat only after the first coat has touch dried depending on the surface temperature. The second coat should always be applied at right angle to the first coat.
- Remove in trapped air bubbles while applying the coat.

### Tile Protection

Before applying a suitable tile adhesive for tile fixing ensure that the surface is smooth and free from pinholes. Start with the tile fixing atleast 24 hours after applying the final coat of Bondit PU 1 K.

### Screed protection

- Before laying the screed for protection, make use of a separation barrier. Based on the



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slope requirement screed should be applied. Plaster is recommended for vertical application.

- For protection during backfill and hydrostatic pressure areas like retaining walls, use the relevant drain board system.

## TECHNICAL DATA

### Physical characteristics

Property	Typical Values
Density @27°C	1.25 (approx)
Solid Content %	64%
Colour of dry film	White
Tack free time @25°C	3-4 hrs
Full cure time @25°C	72 hrs @1.2 mm thickness

### Cured membrane properties @28 days

Test Conditions /Method	Test Method	Typical Values
Tensile Strength, N/mm <sup>2</sup>	ASTM D 412	≥ 1.5
Elongation at break, %	ASTM D 412	> 600%
Crack Bridging Ability, mm	EN 1062-7(A)	≥3.5 mm
Depth of water penetration @ 5 Bar, mm	EN12390-8	NIL
Water Vapour Transmission, g/m <sup>2</sup> /day	ASTM E96	19.5
Service Temperature		5°C to 45°C
Peel adhesion to primed concrete surface	ASTM C 836	≥1.5 MPa
Application temperature		+10°C to 40°C

## COVERAGE

Primer coat- 6 m<sup>2</sup>/kg

1 kg/m<sup>2</sup>/ 2 coats for 1 mm thickness.

## IMPORTANT POINTS TO NOTE

- Minimum DFT per coat of Bondit PU 1K should be more than 0.5 mm and less than



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1 mm. For rough surfaces the material consumption will be more.

- Silicone based treated surfaces should not be overcoated with Bondit PU 1K.
- Poorly bonded substrate to the underlying structure like blistered roof felt may also face problem in attaining a seamless and smooth coating.

### PACKING SIZE

5 kg, 20 kg

### SHELF LIFE & STORAGE

Shelf life: 6 months. Should be stored in clear and dry conditions in an unopened container at ambient temperature. During storage, removable layer of Bondit PU 1K may form, but the product performance remains unaffected.

### PRECAUTION

- If the temperature is more than 40°C or less than 5°C, avoid applying.
- In case of rain avoid using the coat.
- Should not be applied on wet or damp surfaces.
- New concrete surfaces should be completely cured for min 28 days before applying Bondit PU 1K.
- If applied on horizontal surfaces, provision for proper slope should be there. Stagnant water may lead to coating film delamination. For protection of horizontal surfaces screed should be applied.

### HEALTH & SAFETY

- Use protective clothing, goggles and respiratory mask.
- If any spillage into eyes, wash with plenty of water immediately and if irritation persists, seek medical treatment. Keep it away from children.
- The material should be applied under good ventilation in order to avoid any vapour inhalation.



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