



# Technical Data Sheet

## BC Proof PU

### Single-Component Polyurethane Liquid-Applied Waterproofing Membrane

#### 1. Product Description

BC Proof PU is a single-component, moisture-cured, elastomeric polyurethane waterproofing and sealing membrane. It cures to form a tough, seamless, rubber-like film with excellent flexibility, crack-bridging ability, and long-term UV and chemical resistance.

It is designed for waterproofing of concrete substrates in horizontal and vertical applications.

#### 2. Features & Advantages

- Single-component, ready to use—no mixing required.
- Excellent flexibility and elasticity ( $\geq 700\%$  elongation).
- Forms a seamless and joint-free waterproofing layer.
- Strong adhesion to concrete, masonry, and existing surfaces.
- Suitable for both new construction and repair works.
- Anti-root properties—suitable for landscaped areas.
- Easy application by brush, roller, squeegee, or spray.
- Excellent crack-bridging at low temperatures.
- Resistant to standing water, mild chemicals, and detergents.

#### 3. Recommended Uses

BC Proof PU is suitable for waterproofing of:

- Podiums, terraces, balconies, parking decks
- Roof slabs (flat or sloped)
- Water tanks, STPs, ETPs, OHWT, UGT
- Wet areas: kitchens, toilets, shower areas
- Under tiles, terrazzo, screeds
- Bridge decks, shopping malls, plaza areas
- Masonry damp-proof course under first brick/block



## 4. Technical Data

Property	Value
Appearance	Black, viscous liquid
Chemistry	Moisture-cured polyurethane
Application Method	Brush, roller, spray, squeegee
Specific Gravity	1.00 ± 0.10
Total Solids	95 ± 5%
Elongation at Break	≥ 700%
Tensile Strength	≥ 2.2 N/mm <sup>2</sup>
Low-Temp Crack Bridging	No cracking
Thickness (Final Film)	1.2 – 1.5 mm (smooth surface)
Tack-Free Time	24 – 48 hours
Shore Hardness	40 ± 5
Conformance	ASTM C 830
Service Temperature	-10°C to +80°C (after cure)

## 5. Surface Preparation

- Substrate must be clean, dry, sound, and free from dust, oil, grease, paint, or laitance.
- Final cleaning should be done by mechanical grinding / wire brushing.
- Fill cracks, honeycombs, and surface defects using polymer-modified repair mortar.
- Ensure proper slope and drainage.



## 6. Priming

Use BC Prime PU (or equivalent PU primer):

- Mix the primer well.
- Apply a thin, uniform coat using brush or roller.
- Allow minimum 30 minutes air cure before applying BC Proof PU.
- Avoid puddling of primer.

## 7. Application

1. Apply the first coat of BC Proof PU @ 1.0 kg/m<sup>2</sup> using brush, roller, spray, or squeegee.
2. Allow to cure until tack-free (typically overnight).
3. Apply the second coat @ 0.5 kg/m<sup>2</sup> at right angle to the first coat.
4. Optional: While second coat is still tacky, broadcast clean sand to improve adhesion of screed/tile mortar.
5. Allow full cure for 12–48 hours, depending on climate.
6. Protect the membrane with a cement-sand screed before tiling or heavy-duty use.

## 8. Coverage

Application	Coverage
First Coat	~1.0 kg/m <sup>2</sup>
Second Coat	~0.5 kg/m <sup>2</sup>
Total System	1.2 – 1.5 kg/m <sup>2</sup>

Coverage may vary depending on substrate porosity and texture.

## 9. Packing

- 20 kg pail

## 10. Shelf Life & Storage

- Shelf Life: 6 months from date of manufacture
- Store in tightly sealed original container at +5°C to +30°C
- Protect from sunlight, moisture, and ignition sources.



## 11. Health & Safety

- Contains polyurethane precursors; avoid contact with skin and eyes.
- Use gloves and eye protection during application.
- Ensure adequate ventilation in confined areas.
- Skin Contact: Wash with soap and water.
- Eye Contact: Rinse with clean water for 15 minutes; seek medical help.
- Inhalation: Move to fresh air; seek medical attention if symptoms persist.
- Ingestion: Do not induce vomiting; seek medical attention immediately.
- Keep away from children.

### DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

