

# POLYULTRA SEAL

HIGH QUALITY POLYMER PENETRATING SPRAY WATERPROOFING

## DESCRIPTION

**Polyultra Seal** is a high quality polymer penetrating spray waterproofing designed to become an integral component of concrete structures, enhancing the durability and compressive strength while creating a high-strength protective barrier that is resistant to vapour proof, waterproof, oil penetration and acid resistant.

During the curing of concrete, microscopic capillary pores naturally develop within the structure. These capillaries make the concrete porous and reduce its long-term durability. Therefore, sealing these voids in both new and existing concrete substrates is essential to prevent premature deterioration.

Once applied, **Polyultra Seal** penetrates deeply into the concrete through these capillaries. At ambient temperature, it chemically reacts with free lime present in the concrete matrix, forming insoluble calcium silicate complexes that are highly resistant to water and chemicals.

These crystalline compounds fill both surface and sub-surface pores (up to approximately 20 mm depth), creating a breathable waterproof barrier that prevents water ingress and contaminant penetration.

This penetrating waterproofing system enhances concrete durability, protects against deterioration, and maintains performance even under thermal movement conditions, especially on large horizontal surfaces.

## RECOMMENDED USES

- Bathroom, Shower Walls & Wet Area Surfaces
- Bridge Decks
- Roof & Carpark Roof
- Carpark Flooring
- Walkways & Driveways

## APPLICATION INSTRUCTIONS

### Surface Preparation

All surfaces must be thoroughly cleaned prior to application. Remove laitance, dust, oil, grease, and contaminants. Substrate must be completely dry, which can interfere with penetration.

### Application Method

**Polyultra Seal** may be applied using roller, brush, or spray. For optimal penetration and uniform coverage, spray application is recommended.

- Ensure all treated areas are clean and free from oils and grease.
- Apply at a rate of approximately 5 m<sup>2</sup> per litre.
- Apply only on concrete that has cured to ensure proper penetration. Younger concrete may limit penetration due to excess calcium hydrates.
- Apply only to dry concrete surfaces.

## OUTSTANDING FEATURES

### **1) Enhances Concrete Hardness and Strength (Up to 35%)**

- Improves resistance against heavy traffic, abrasion, and thermal stress.
- Maintains tensile integrity of the surface.

### **2) Seals Hairline Cracks**

- Achieved through calcium-based injection reaction.
- Capable of waterproofing cracks subjected to cyclic expansion and contraction due to temperature changes.

### **3) Ongoing Waterproofing Action**

- Reactivates in the presence of moisture to reseal shrinkage cracks formed over time.

### **4) Significant Cost Savings**

- Minimizes or eliminates maintenance costs.
- More economical compared to conventional surface treatments.
- Low material consumption per square meter.
- Cracking due to thermal contraction, applied loads, or rapid moisture loss in plastic-stage concrete.
- Dusting caused by excessive water content or rainfall during finishing.

### **5) Prevents Common Surface Defects**

- Surface scaling caused by improper finishing, inadequate curing, freeze-thaw cycles, or de-icing salts.
- Cracking due to thermal contraction, applied loads, or rapid moisture loss in plastic-stage concrete.

## CLEANING OF EQUIPMENT

Clean tools with soapy water followed by rinsing with clean water. Flush spray equipment with mineral spirits to prevent corrosion.

## PACKAGING

- 20 litre pail

## STORAGE AND SHELF

- Shelf life: 12 months when stored in sealed containers.
- Store in a cool, dry place away from ignition sources and direct sunlight. Avoid prolonged exposure to open air.

## PRECAUTION

Do not apply if rain is expected before full drying or if temperature may fall below 4°C.

Do not apply over shingles or underlays.

Protect freshly applied coating from rain, excessive heat, or moisture during the initial hours.

## HEALTH AND SAFETY

- Wear protective gloves and safety goggles during application.
- Avoid prolonged skin contact and prevent contact with eyes and mouth.
- In case of skin contact, wash with soap and water.
- If product enters eyes, rinse immediately with clean water and seek medical attention if irritation persists.