

## HIGH-PERFORMANCE PURE POLYUREA COATING

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### **PFS SPU-1100: High-Performance Pure Polyurea Coating**

PFS SPU-1100 is a state-of-the-art, solvent-free, two-component pure polyurea spray coating. Designed for high-demand environments, this seamless membrane provides an exceptionally elastic and tear-resistant surface capable of withstanding extreme mechanical wear, heavy impact, and aggressive chemical exposure.

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#### **Key Advantages**

- **Rapid Return to Service:** Near-instant curing allows for foot traffic and operation within minutes.
  - **Extreme Durability:** Outstanding impact and abrasion resistance for hard-wearing surfaces.
  - **Chemical Resilience:** Provides a robust barrier against a wide range of industrial chemicals, acids, and alkalis.
  - **Seamless & Waterproof:** Eliminates joints and seams to create a monolithic waterproofing layer.
  - **Environmental Safety:** Solvent-free formulation (100% solids).
  - **Potable Water Safe:** Approved for contact with drinking water (BS 6920 / WRAS).
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#### **Typical Applications**

- **Infrastructure:** Bridge coatings, parking decks, and tunnel linings.
  - **Water Management:** Potable water tank linings, sewage treatment plants, and swimming pools.
  - **Industrial:** Secondary containment for chemical tanks and floor slabs.
  - **Heavy Duty:** Truck bed liners and marine-grade protective coatings.
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**Application Guidelines**

- **Mixing Ratio:** 1:1 by volume.
- **Equipment:** Heated, plural-component airless spray equipment is required.
- **Pressure:** Maintain 1800psi -2500psi (126-175kg/cm<sup>2</sup>) to ensure proper mixing.
- **Surface Prep:** Substrates must be clean, dry, and free of contaminants. Concrete moisture should be maximum 10%.
- **Priming:** Priming is required (approx. @ 0.2 kg /m<sup>2</sup> /coat) to ensure maximum adhesion.
- **Aesthetic Note:** While suitable for outdoor use, the coating may exhibit yellowing (ambering) when exposed to UV. For color stability, apply a UV-stable topcoat.

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**Storage & Packaging**

- **Packaging:** Available in 42.5kg/sets (A:B = 22.5:20)
- **Shelf Life:** 12 months when stored unopened in a cool, dry place.

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**Safety & Personal Protective Equipment (PPE)**

- **Skin Protection:** Always wear impervious gloves and use a barrier cream when handling the product.
- **Eye Protection:** Protective eyewear is mandatory to prevent accidental contact during the high-pressure spray process.
- **Ventilation:** Ensure adequate ventilation in the workspace at all times during application.

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**Technical & Physical Data**

<b>Property</b>	<b>Test Method</b>	<b>Result</b>
<b>Solids Content</b>	—	<b>100%</b>
<b>Hardness</b>	<b>ASTM D2240-05</b>	<b>76</b>
<b>Tensile Strength</b>	<b>ASTM D412-06a</b>	<b>&gt; 150 kgf/cm<sup>2</sup></b>
<b>Elongation</b>	<b>ASTM D412-06a</b>	<b>&gt; 500 %</b>
<b>Tear Strength</b>	<b>ASTM D624-00</b>	<b>&gt; 70 kgf/cm</b>
<b>Adhesive Strength</b>	<b>ASTM D4541</b>	<b>&gt; 20 kgf/cm<sup>2</sup> (Concrete)</b>
<b>Abrasion Resistance</b>	<b>ASTM D4060-07</b>	<b>&lt; 0.1 g (H-18, 1000g, 1000 cycles)</b>
<b>Tack-Free Time</b>	—	<b>30 seconds</b>
<b>Service Temp (Heat)</b>	<b>ASTM D573-04</b>	<b>No abnormality for 120°C (24hrs)</b>
<b>Pliability (Cold)</b>	<b>ASTM D146-04</b>	<b>No abnormality -40°C</b>