

HIGH-PERFORMANCE PURE POLYUREA COATING

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.

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/cm²) 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 /m² /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.



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.

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:** Always ensure adequate ventilation in the workspace during application.

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Technical & Physical Data

Property	Test Method	Result
Solids Content	—	100%
Hardness	ASTM D2240-05	76
Tensile Strength	ASTM D412-06a	> 150 kgf/cm²
Elongation	ASTM D412-06a	> 500 %
Tear Strength	ASTM D624-00	> 70 kgf/cm
Adhesive Strength	ASTM D4541	> 20 kgf/cm² (Concrete)
Abrasion Resistance	ASTM D4060-07	< 0.1 g (H-18, 1000g, 1000 cycles)
Tack-Free Time	—	30 seconds
Service Temp (Heat)	ASTM D573-04	No abnormality for 120°C (24hrs)
Pliability (Cold)	ASTM D146-04	No abnormality -40°C