

## Flame-Retardant Two-Component Polyurethane Foam

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### PFS PUR-1200: Flame-Retardant Two-Component Polyurethane Foam

PFS PUR-1200 is a high-performance, flame-retardant two-component polyurethane spray foam system. Comprising Component A (Polyol blend) and Component B (Isocyanate), this system reacts rapidly upon mixing to form a rigid, closed-cell foam known for its superior thermal insulation and structural stability.

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#### Key Advantages

- **Flame Retardancy:** Meets GB 8624 standards with an Oxygen Index (LOI)  $\geq 26\%$ , providing critical fire resistance for construction safety.
- **Superior Thermal Insulation:** Features a low initial thermal conductivity ( $\leq 24$  mW/(m·K)), significantly enhancing energy efficiency.
- **High Waterproofing Performance:** Achieves a closed-cell content of  $\geq 90\%$ , offering an effective barrier against moisture and water penetration.
- **Excellent Adhesion:** Bonds strongly to diverse substrates, including concrete, metal, wood, and various plastics.
- **Environmental Responsibility:** Free from CFCs and HCFCs, and compliant with low VOC emission standards.
- **Dimensional Stability:** Maintains structural integrity across a wide temperature range without shrinking or cracking.



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### Typical Applications

- **Building Insulation:** Exterior wall insulation systems providing simultaneous thermal, acoustic, and waterproof protection.
  - **Roofing Systems:** Spray-applied insulation and filling for commercial and residential rooftops.
  - **Cold Chain Infrastructure:** Thermal lining for cold storage facilities and refrigerated transport containers.
  - **Industrial Protection:** Insulation for large-scale storage tanks, chemical reactors, and industrial piping.
  - **Specialized Filling:** Core insulation for fire-rated doors and void filling for marine buoyancy applications.
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### Application Guidelines

- **Mixing Ratio:** Weight Ratio A:B = 100 : 100–105 (Adjustable based on specific requirements).
  - **Environmental Conditions:**
    - Ambient Temperature: 15°C – 30°C (Optimal).
    - Substrate Temperature: 10°C – 40°C.
    - Relative Humidity: ≤ 80%.
  - **Surface Prep:** Substrates must be clean, dry, and free of oil, dust, and rust. Smooth surfaces should be sanded to enhance adhesion. Pre-wetting with a light water mist may assist the foaming reaction in certain environments.
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- **Curing Profile (at 23°C):**
  - Tack-Free Time: 60 – 80 minutes.
  - Handling Time: 5 – 8 hours.
  - Full Cure: 5 – 7 days.

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### Storage & Packaging

- **Packaging:** 250kg Iron Drum.
- **Storage Temperature:** 10°C – 25°C in a cool, dry, ventilated area.
- **Shelf Life:** Component A: 3 months / Component B: 6 months (Unopened).

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### Safety & Personal Protective Equipment (PPE)

- **Skin Protection:** Wear impervious gloves and protective clothing. Wash thoroughly with soap and water upon contact.
- **Eye Protection:** Mandatory use of safety goggles. In case of contact, flush with water for 10 minutes and seek medical advice.

**Respiratory Protection:** Ensure adequate ventilation. If inhaled in high concentrations, move to fresh air immediately.

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**Technical & Physical Data**

<b>Property</b>	<b>Test Method</b>	<b>Result</b>
<b>Applied Density</b>	<b>GB/T 6343</b>	<b>≥ 35 kg/m<sup>3</sup></b>
<b>Closed-Cell Content</b>	<b>GB/T 10799</b>	<b>≥ 90%</b>
<b>Thermal Conductivity (15°C)</b>	<b>GB/T 3399</b>	<b>≤ 24 mW/(m·K)</b>
<b>Compressive Strength</b>	<b>GB/T 8813</b>	<b>≥ 150 kPa</b>
<b>Adhesive Strength</b>	<b>GB/T 16777</b>	<b>≥ 120 kPa</b>
<b>Dimensional Stability (-20°C,24h)</b>	<b>GB/T 8811</b>	<b>≤ 1.0%</b>
<b>Water Absorption</b>	<b>GB/T 8810</b>	<b>≤ 3%</b>
<b>Flame Retardancy Class</b>	<b>GB 8624-2012</b>	<b>B2 Grade</b>
<b>Oxygen Index (LOI)</b>	<b>GB/T 2406.2</b>	<b>≥ 26%</b>