YUXI

# FLAME-RETARDANT SPRAY-ON POLYUREA COATING FOR FOAM PROPS RIGID PROTECTION (CLASS $B_1$)

## P-150Z



AMPP CORPORATE MEMBER

www.yuxi-anode.com

# Flame-Retardant Spray-on Polyurea Coating for Foam Props Rigid Protection (Class $B_1$) P-150Z

YUXI's P-150Z two-component fire-retardant polyurea coating is a self-extinguishing coating specially formulated to create fire-resistant, structurally reinforced surfaces for foam substrates. The coating consists of a quasi-prepolymer and a mixture of polyether amines, amine extenders and specialized additives. Once cured, it forms a rigid, impact-resistant shell that significantly increases the stiffness and structural rigidity of foam substrates. Featuring high hardness, excellent impact resistance, flame-retardant performance and thermal insulation, P-150Z is specifically recommended for film and TV props, foam sculptures and other foam-based structures requiring structural reinforcement and flame-retardant protection.

## ADVANTAGES

- Consecutive and seamless coating film
- High tensile and tear strength
- Excellent flame retardancy (complies with flammability class $B_1$)
- Extraordinary hardness enables surfaces to resist impact, abrasion, scratches, etc.
- Excellent hybrid spraying characteristics allows for easy application
- Exceptional durability and longevity



## FIELD OF USE

YUXI's polyurea coating can be successfully applied on a broad range of foam substrates in the following:

- Expanded Polystyrene (EPS)
- Extruded Polystyrene (XPS)
- Polyurethane (PU) foam

* For application to other substrates or scopes of use, please contact our technician for further information.



## PRACTICAL APPLICATION

Our coating can be used on film and television props, stage scenery, theme park decorations, exhibition displays, EPS foam sculptures, commercial decorative installations, architectural foam moldings and other foam-based artistic structures.



E-mail: info@yuxi-anode.com • Tel: +86 (574) 83882233 www.yuxi-anode.com

# Flame-Retardant Spray-on Polyurea Coating for Foam Props Rigid Protection (Class $B_1$) P-150Z

## TECHNICAL CHARACTERISTICS

### Component Properties

| | Component A | Component B |
|---|---|---|
| **Type** | Base | Hardener |
| **Composition** | Isocyanate-terminated Quasi-prepolymer | Polyether Polyol |
| **Consistency** | Liquid | Fluid |
| **Color*** | Brownish | White, Red, Black, Gold |
| **Weight** | 200 kg | 220 kg |
| **Packaging** | Metal Barrel | Metal Barrel |



* Other RAL colors are available on request.

### Physical Properties

The parameters are given under specific test conditions in accordance with the requirements specified in the GB/T 16777-2008 standards.

| Technical Measurement | Performance |
|---|---|
| **Tensile Strength** | ≥ 15 MPa |
| **Elongation at Break** | ≥ 20% |
| **Tear Strength** | ≥ 40 N/mm |
| **Hardness (Shore D)** | 65 |
| **Flammability Class** | $B_1$ |

### Chemical Properties

The results are performed under lab controllable conditions. These values may vary based on the application, climatology, or substrate conditions.

| Technical Measurement | Performance |
|---|---|
| **A/B Ratio (by volume)** | 1:1 |
| **Solids Content** | 95% |
| **Theoretical Coverage** | 1.4 kg/m² (at 1mm dry film thick) |
| **Dry Film Thickness (DFT)*** | 1 mm |
| **Gel Time** | ≤ 30 seconds |
| **Tack-free Time** | ≤ 5 minutes |
| **Overcoat Intervals** | < 6 hours |

*Actual required DFT may vary in certain applications, please contact us for technical clarification.

**Notice:** The technical data contained herein are true and accurate to the best of our knowledge. Published technical data are subject to change without prior notice. Test report issued by the third-party accredited laboratory is available upon request.

**E-mail: info@yuxi-anode.com • Tel: +86 (574) 83882233** **www.yuxi-anode.com**

# Flame-Retardant Spray-on Polyurea Coating for Foam Props Rigid Protection (Class $B_1$) P-150Z

## APPLICATION INSTRUCTIONS

### Surface Preparation

All surfaces to be coated must be dry, clean and free from contamination. Visible defects and cracks on the substrate must be repaired beforehand. The coating shall be applied on a substrate with a moisture content of no more than 10%. Substrate temperature during application should be at least 3°C (5°F) above dew point.

### Priming

The substrate must be treated with suitable prime. If needed, mid coat can be applied. The primer shall be allowed to become tack free prior to application, generally not later than 48 hours.

### Mixing

Thoroughly premix component B prior to use. Then mix component A with the component B in the indicated mixing ratio till homogenous mixture is obtained. Do not add solvents or thinners.

### Equipment

Our polyurea coating should be sprayed using a regulated high-pressure, high-temperature two-component airless spray rig. All tools should be cleaned immediately after use.

## STORAGE

Store the product in a dry, ventilated, covered area at temperatures between 5 ℃ and 35 ℃. Protect from heat, frost and direct sunlight. The shelf life is 6 months from the date of production under suitable storage conditions in its original sealed packing. Once open, use it immediately. Opened containers can be resealed, but the material shelf life will ultimately shorten.

## SAFETY PRECAUTIONS

Carefully read and follow all instructions on the safe handling and disposal of chemical products.

- **Warning:** This product contains organic solvent, which may cause skin irritation and inhalation can be toxic. Avoid contact with eyes and skin.
- **Eye protection:** Wear safety goggles to prevent splashing and exposure to particles in the air. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- **Skin protection:** Wear suitable protective clothing and gloves. In case of skin contact, wash with thoroughly soap and plenty of water. Get medical attention if irritation develops or persists.
- **Respiratory protection:** Adequate ventilation of the working area is recommended. When spraying, use an air-purifying respirator to protect the respiratory tract.
- **Fire prevention:** This product is flammable. In case of fire, blanket flames with foam, carbon dioxide or dry chemicals.
- **Waste disposal:** The product is hazardous for aquatic life, do not dispose of the product down the drain. Follow and observe any applicable local or national laws and regulations.

For further and complete information about the safe use of our product, please refer to the latest version of our Material Safety Data Sheet (MSDS).



YUXI

**E-mail:** info@yuxi-anode.com **Tel:** +86 (574) 83882233
**5/F, Building 4, 1819 Yongmao East Road, Ningbo 315201, China**

**www.yuxi-anode.com**

Go to Our Web

Follow Us on LinkedIn