



# ELASTOMERIC SPRAY-ON POLYUREA COATING FOR WATER TANK LININGS

**P-120E**



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## P-120E

YUXI's P-120E two-component polyurea coating is a reliable, durable elastomeric protective coating formulated with isocyanate prepolymer, polyether amines, and amine chain extenders. With incredible waterproof, chemically-resistant and abrasion-resistant ability, this coating ensures the longevity and heightened performance of water tank linings that are used for commercial, industrial, and residential structural applications.

### ADVANTAGES

- Consecutive and seamless coating film
- High tensile strength, tear strength and elasticity
- High-performance water insulation capability
- Excellent resistance against chemical corrosion
- Superior hardness enables surfaces to resist impact, abrasion, scratches, etc.
- Fast setting for spraying on horizontal, vertical, and overhead surfaces without dripping
- Excellent hybrid spraying characteristics allows for easy application
- Exceptional durability and longevity
- Safety for use in contact with drinking water (complies with NSF/ANSI 61, AS/NZS 4020-2005)

### FIELD OF USE

YUXI's polyurea coating can be successfully applied on the substrates in the following:

- Cementitious substrates, such as concrete surface, cement board, mortar, etc.
- High porous substrates, such as brick, marble and natural stones
- Non-porous substrates, such as ceramic tiles or other masonry structure
- Ferrous metal surface, such as steel, cast iron, galvanized steel, stainless steel, etc.
- Non-ferrous metal surface, such as aluminum alloy, copper, bronze, tin, etc.
- Impervious substrates, such as plastic, glass, etc

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





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### PRACTICAL APPLICATION

YUXI's P-120E polyurea coating is designed to line and seal the concrete sumps and metallic tanks containing everything from hazardous waste to drinking water. It creates a durable, flexible, water-tight and contaminant-free barrier to protect from cracks, leaks, UV degradation, or other types of damage or deterioration risk.



Waterproofing of potable water tank for municipal and rural district



Waterproofing of elevated water tank on tower



Waterproofing of water storage container or gigantic water bottle with high water quality requirements



Protection of water reservoir, water pond, stormwater detention tank or digester tank in water treatment plant



Protection of desalination water tank or industrial sump tank designed to hold large volumes of liquids



Protection of of hydraulic facilities, such as penstock, water canal, intake piping, dam, basin, etc.



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## TECHNICAL CHARACTERISTICS

### ■ Component Properties

	Component A	Component B
<b>Type</b>	Base	Hardener
<b>Composition</b>	Isocyanate Prepolymer	Polyether Polyol
<b>Consistency</b>	Liquid	Fluid
<b>Color</b>	Yellowish	White, Pastel Blue
<b>Weight</b>	50 kg	50 kg
<b>Packaging</b>	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 standards.

Technical Measurement	Performance
<b>Tensile Strength</b>	22.42 MPa
<b>Elongation at Break</b>	461%
<b>Tear Strength</b>	78 N/mm
<b>Hardness (Shore A)</b>	91
<b>Abrasion Resistance (Taber Test)</b>	7 mg (750g load / 500r)
<b>Impact Resistance</b>	1 kg/m
<b>Flexibility</b>	No Cracking (@-40 °C)
<b>Bond Strength</b>	≥ 2.5 MPa
<b>Water Absorption</b>	2.7%
<b>Water Permeability</b>	Impermeable (0.4 MPa, 2 hrs.)
<b>Thermal Aging</b>	No Cracking

### ■ 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
<b>A/B Ratio (by weight)</b>	1:1
<b>Solids Content</b>	99.6%
<b>VOC Content</b>	20 g/L
<b>Theoretical Coverage</b>	1.08 kg/m <sup>2</sup> (at 1 mm dry film thick)
<b>Dry Film Thickness (DFT)*</b>	1~2 mm
<b>Gel Time</b>	27 seconds
<b>Tack-free Time</b>	35 seconds
<b>Overcoat Intervals</b>	≤ 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.



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### APPLICATION INSTRUCTIONS

#### ■ Surface Preparation

All surfaces should be prepared accordingly depending on the type of substrate, for example by brushing, rubbing, sand blasting, shot blasting, scarifying, bush hammering. For optimum adhesion, the substrate must be sound, dry and clean. Remove all loose materials and contaminants, such as dirt, dust, debris, rust, grease, oil, wax, etc.

#### ■ Priming

The substrate must be treated with suitable prime. If needed, mid coat can be applied.

#### ■ 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°C and 35°C. Protect from heat, frost and direct sunlight. The shelf life is 12 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 isocyanate MDI, 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).







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