YUXI

FLAME-RETARDANT SPRAY-ON POLYUREA COATING (CLASS B_2-E)

P-920

AMPP CORPORATE MEMBER

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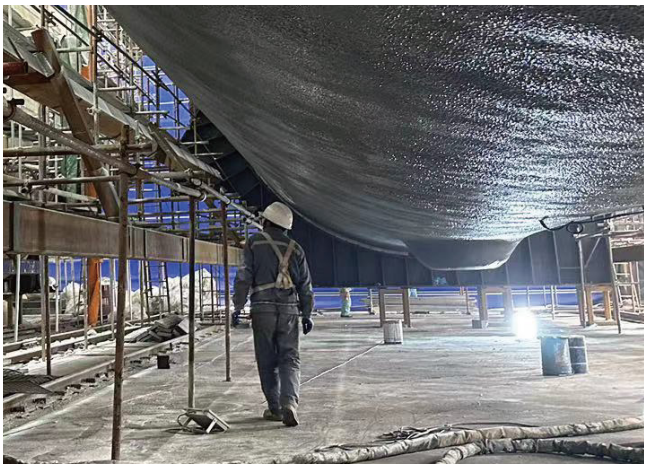
YUXI's P-920 two-component fire-retardant polyurea coating is a self-extinguishing coating material which is specially formulated to create fire-resistant surfaces. The coating consists of a quasi-prepolymer as well as a mixture of polyether amines , amine extenders and specialized additives. With outstanding characteristics of high hardness, permanent elasticity, chemical resistance, fire retardancy and thermal insulation, our P-920 polyurea coating is strongly recommended for use in commercial and industrial sectors requiring high levels of fire resistance ratings.

ADVANTAGES

- Outstanding flame retardancy (complies with flammability class B_2-E)
- Consecutive and seamless coating film
- High tensile, tear strength and elasticity
- Excellent water insulation capability
- Enhanced resistance against chemical corrosion
- Superior hardness enables surfaces to resist impact, abrasion, scratches, etc.
- Extremely fast setting for a quick turnaround
- Excellent hybrid spraying characteristics allows for easy application
- Exceptional durability and longevity



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.
- Plaster structure, such as gypsum board or similar surface
- 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.
- Wooden surfaces, such as parquet floor or otherwise
- 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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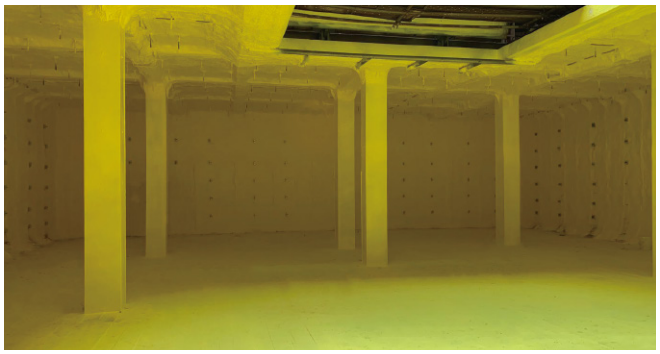
PRACTICAL APPLICATION

Thanks to its flame and heat resistance, YUXI's P-920 polyurea coating serves an important role in protecting your assets against fire damage, in addition to providing the mechanical protective properties it's relied on for. It is ideally applied in flammable or explosives areas where can pose high-level danger of open flame or spark, such as outbuildings, steps, railings, pipelines, tanks, manufacturing equipment, secondary containment bunds, etc.

Passive fire protection for LNG modules and fuel tank

Reliable secondary containment lining for oil and gas tank



Enhanced fire resistance for refrigerated cargo hold or compartment

Vital safety enhancement for industrial plant, chemical warehouse or any high-risk environments where are prone to fire and explosion hazards

Robust protection for building structures requiring flame retardance, such as fire partition, fire door, fire shutter, Fire escape ladder, etc.

Extra safety barrier for aerospace machinery and equipment, such as engine nacelles, fairings, skins, rudders, stabilizers, flaps, doors, etc.

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TECHNICAL CHARACTERISTICS

Component Properties

	Component A	Component B
Type	Base	Hardener
Composition	Isocyanate-terminated Quasi-prepolymer	Polyether Polyol
Consistency	Liquid	Fluid
Color	Yellowish	Grey
Weight	220 kg	200 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 Q/NBHY 0101-2022 standards.

Technical Measurement	Performance
Tensile Strength	15.09 MPa
Elongation at Break	358%
Tear Strength	81 N/mm
Hardness (Shore A)	92
Flexibility	No Cracking (@-35℃)
Adhesion Strength (to Steel)	7.9 MPa
Adhesion Strength (to Concrete)	3.1 MPa
Water Permeability	Impermeable (0.4 MPa, 2 hrs.)
Flammability Class	B_2-E

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	98%
Theoretical Coverage	1.08 kg/m² (at 1 mm dry film thick)
Dry Film Thickness (DFT)*	1.5~3 mm
Gel Time	10 seconds
Tack-free Time	30 seconds

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

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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 not less than 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 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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