UL XP 6613F

Two Component Aromatic Polyurea Protective Coating

DESCRIPTION

UL XP 6613F is a fast set, rapid curing, 100% solids, flexible, aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F (-29°C). It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures. **UL XP 6613F** offers a tack free time of less than forty seconds and exhibits 425% elongation upon curing with 50 Shore D hardness.

FEATURES

*Zero VOC (100% Solids), Seamless, Odorless
* Excellent Thermal Stability
*Low Temperature Flexibility
*Good Chemical Resistance
*Coats Carbon or Mild Steel Metals without Primer
* Installed with or without Reinforcement In Transitional Areas

TYPICAL USES

Airports, Power Plants, Refineries, Fertilizer Plants, Warehouse Floors, Mining Operations, Parking Garages, Cold Storage Facilities, Walkways, Balcones, Marine Environments, Water and Waste Water Treatment, Industrial and Manufacturing Facilities

COLORS

Neutral. Custom colors are available upon request. Due to its aromatic composition, **UL XP 6613F** will tend to yellow or darken in color and will become flat after exposure to UV light. **UL XP 6613F** may be top coated with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

100 gallon kit: 50 gallons Part-A (Isocyanate side) and 50 gallons Part-B (Resin side).

COVERAGE

UL XP 6613F may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. UL recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact UL .

TECHNICAL DATA

Mix Ratio by Volume ..... 1A : 1B
Tack Free Time (thickness & substrate temperature dependent) ... 20 - 40 secs
Viscosity at 150-160°F (66.5-71°C), Brookfield:
Part-A ..... 50 ± 20 cps
Part-B ..... 50 ± 20 cps
Density (Side A & B Combined) ..... 8.9 lbs/gal
Tear, ASTM D-412* ..... 450 ± 50 pli
Service Temperature ..... -40°F to 250°F
Recommended Applied Thickness ..... > 2 mm
Return to Service: Full Service ..... > 24 hours
Taber Abrasion Resistance, ASTM D4060
(CS17 wheel, 1000 cycles, 1 kg load) (maximum) ..... 6 mg loss
Crack Bridging, ASTM C836
(-25°C, 1.6mm crack, 25 cycles) ..... Pass
Inter-Coat Adhesion (within recoat time) ..... Excellent
Concrete (Primed), substrate failure occurred ..... > 500 psi
Steel (90 um blast profile) ..... > 900 psi
Lineal Shrinkage ..... 1 - 2%

Pot Life @ 150°F ..... 2 - 4 secs
Recoat Time ..... 0 - 6 hours
Flash Point ……..>200`F
Hardness, ASTM D-2240 ……..53 +- 5 D
Tensile, ASTM D-412* ……3500 +- 200 psi
Elongation, ASTM D-412* ……250% +- 50%
VOC Content ……0 gm/lit
Water Vapor Permeability, ASTM E-96 ……0.361 Perm-inch
Return to Service: Foot Trafic ……..1-4 hours
Water Absorption, ASTM D471
Maximum 23`C, 24 hours ……..<0.5%
Impact Resistance @ 25`C (ASTM G14) ……>200 lbs

Pull-Off Strength (minimum), ASTM D4541:
Concrete (Shot blasted profile), substrate failure occurred .... > 500 psi
Flexibility (1/8" 3mm Mendrel Bend Test), ASTM D1737..Pass
Resistance to Weathering, ASTM G-23

(Type QUV Weatherometer-3000 hrs exposure) ..... No cracking or blistering. Color change, gloss reduction & chalking are noted.
(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

New and Old Concrete:
Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient **UL Products** profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shot blasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, **UL BC 371** or a mixture of **UL PM 32** and sand should be used as a repair agent for cracks, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

Concrete Surface Preparation Reference:
ASTM D4258 - Standard practice for cleaning concrete
ASTM D4259 - Standard practice for abrading concrete
ASTM D4260 - Standard practice for etching concrete
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete
ICRI 03732 - Concrete surface preparation

Wood:
All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using **UL BC 371** with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

Steel (Atmospheric and Immersion Exposure):
Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot UL on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

Aluminum:
Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

Brass and Copper:
Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

Galvanized Surfaces:
Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

Fiberglass Reinforced Plastic:
The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

Plastic Foams:
Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

Textiles, Canvas, Fabrics:
Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

Stainless Steel:
Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

New and Old Cast Iron:
Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

All Other Surfaces:
An adhesion test is recommended prior to starting the project.

MIXING
UL XP 6613F may not be diluted under any circumstances. Thoroughly mix **UL XP 6613F** Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

APPLICATION
Both Side-A and Side-B materials should be preconditioned to 75- 80°F before application. Recommended surface temperature must be at least 5°F above the dew point. UL XP 6613F should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used. Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times. **UL XP 6613F** should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE
UL XP 6613F has a shelf life of one (1) year from date of manufacture, in factory-sealed containers. Part-A and Part-B drums are recommended to be stored above 60°F. Avoid freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground. If stored for a long period of time, rotate Part-A and Part-B drums regularly.

LIMITATIONS
Do not open until ready to use.
Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING
This product contains Isocyanates and Curative Material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Ultimate Linings Products representative or visit our website for recently updated instructions and data.

Limited Warranty

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