



Epoxy.com Product #312

Sprayable Aliphatic Polyurea Coating

DESCRIPTION

Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating is a two component sprayable aliphatic polyurea. It dries in seconds to provide a tough chemical and abrasion resistant coating. As an aliphatic polyurea, Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating is color fast and will resist yellowing from Ultra violet light exposure. Typical working times of one minute or less can be expected. This fast reaction requires a fast, efficient mixing technique so that the mixture can be applied within the short gel times. Impingement mixing from available two-component spray machinery is efficient and entirely adequate.

Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating is recommended for use in areas such as tanks, cooling tower linings, water and wastewater and waterproof deck coatings. It can be used in food and beverage cold storage areas, mechanical rooms, industrial plants, chemical and fertilizer plants, pulp and paper mills and petrochemical facilities.

ADVANTAGES

- Fast cure. Can be mixed and put in service within 2 hours.
- Chemical and UV resistant.
- 100% solids. Two-component, low shrinkage.
- Excellent physical properties including high adhesion, tensile strength and abrasion resistance.
- High thermal stability at temperatures up to 250° F.

SURFACE PREPARATION

Steel Surfaces - Prepare in accordance with Steel Structures Painting Council Surface Preparation SSPC-SP6 to SP10 near-white metal blast cleaning. All work blasted should be coated the same day.

New concrete - Remove laitance by acid etching, abrasive blasting or water blasting. Old concrete - abrasive blast or water blast to remove laitance and contamination. Spray apply one coat of [Epoxy.com Product #810 Polyurea Primer](#) to prevent pinholes

Polyurea - Less than three days old solvent wipe and apply Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating ; if more than 3 days old roughen surface with abrasive sanding. Solvent Wipe with Acetone or MEK and apply

Project Conditions: Surface must be structurally sound, dry, and uncontaminated. Concrete must be free of voids, bugholes, honeycombs and delaminations.

APPLICATION

For large volumes, a high-pressure proportioner with heated lines and an external impingement mix, two-component spray gun may be used. **Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating** can be applied at temperatures from 35°F to 120°F.

The Gusmer Model H-V high-pressure proportioner and Gusmer Model GX-7 series with a 212 PCD and 453 mixing nozzle are recommended. Best spray pressure is 2000 to 3000 psi; hydraulic pressure at

400 - 550 psi. Materials are heated to 140 - 160° F for spraying. The use of conventional static mix or plural-component internal-mix spray equipment is not recommended. Thickness can be built to most specifications in one application. Best spraying practice is with gun 2 ft. from surface and perpendicular to surface. Edges left overnight should be roughened and primed before overlapping.

PHYSICAL PROPERTIES	
Mix Ratio	By volume 1A to 1B
Drying Properties @ 30 mils wet @ 73° F and 50% RH	
Gel time, seconds	45
To touch	3 minutes
To recoat	3 minutes minimum;16 hours maximum
Surface at 1 hour	tack free
Full Cure	24 hours
Elongation, %	750
Tear strength	500 pli
Shore D Hardness	54
Tensile strength, psi	2400
Remains flexible in temperature range of	-45°F to 200°F
Flash Point, Components	>200° F
Gardner Impact	Direct and Indirect >160 in-lbs
Moisture Vapor Transmission ASTM E 96	0.025 perm
Abrasion Resistance (wt. loss mg) ASTM D 4060	1000g 1000 rev CS-17 6 mg.
Color	White, Black, Light Gray, Dark Gray, Beige, Brick Red,
Bond Strength	
Concrete	350 psi
Steel	1,500 psi
Wood	450 psi

PACKAGING: Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating is packaged as a 100 gallon unit.

LIMITATIONS

Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating is an aliphatic based polyurea system. Consult chemical resistant chart for corrosive environment applications. Do not install in hydrostatic or moisture/vapor conditions.

SHELF LIFE: Six months minimum when stored at 75° F and dry conditions. **Epoxy.com Product #312 Aliphatic Sprayable Polyurea Coating**, like most construction materials, must be stored in a dry, well protected and suitable storage environment. Keep containers sealed.

CAUTION: Contains aliphatic isocyanates. Avoid breathing vapors. Avoid contact with skin and eyes. Do not ingest. Keep away from foodstuffs and wash thoroughly before smoking or eating. Should skin contact occur, wash skin well with soap and water. Should eye contact occur, flush thoroughly for at least 15 minutes with water. Get medical attention.

FOR INDUSTRIAL USE ONLY KEEP AWAY FROM CHILDREN

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