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POLYMER NATION CHEMICAL COMPANY, LLC

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TECHNICAL DATA SHEET: U-35 1K WB ACRYLIC URETHANE SEALER

Product Overview

U-35 is an aliphatic, non-yellowing, one-component, water-based acrylic urethane sealer with excellent wear and abrasion resistance properties. It provides excellent protection against moisture penetration. U-35 has virtually no odor and its VOC content is less than 50 g/L. Because it is fast drying characteristics, multiple coats can be applied in a short amount of time.

Uses and Benefits

U-35 is used as a clear sealer over flake floor systems. This mid coat helps to lock the flake in, and easily accepts common topcoats such as PN F-61/71/81 or PN U-51.

U-35 can also be applied over concrete or cementitious surfaces due to its excellent wear and abrasion resistance. A minimum of 2 coats is recommended for complete sealing of the substrate. Its low to zero odor makes U-35 an easy choice for indoor applications when sealing concrete and cementitious surfaces.

Limitations

U-35 is designed to be applied between 2-3 mils. Ideal application temperatures to be between 60-90°F Colder temperatures and/or high humidity will increase cure times. Warmer temperatures and/or low humidity will decrease working and cure times.

Surface Preparation

The preparation method for each project is determined by a full understanding of the substrate to be coated, the chemistry of the coating system being used, the coating system thickness, and numerous other factors. The coating installer should fully read and understand ICRI Guideline NO.03732 and OSHA 29 CFR 1926.1153 before starting preparatory work. The aim, of preparing a substrate for coating applications, is to roughen the surface, remove weak layers, contaminants, dirt, debris and present a solid, clean, dry substrate for the primer. If unsure as to the level of preparation needed contact Polymer Nation at Lab@polymerNation.com.

Application

U-35 can be applied either by squeegee and backroll or by dip and roll application. **Squeegee/Backroll:** pour a ribbon of material approximately 4-6 inches wide and squeegee out with appropriate pressure. After the material has been placed, backroll with a 1/4" nap roller sleeve. **Dip and Roll:** Pour material needed from the container into a paint tray and saturate a 1/4" nap roller with material. Roll onto the floor and spread at approximately 500-800 sq ft/gal. Back roll perpendicular to evenly spread the material. Strike off the material in the same direction as material was rolled. Material can also be bucket-rolled using a 1/4" nap roller cover. Recoat as soon as first coat is dry to touch (usually 30-60 minutes).

Clean tools with a solvent similar to Denatured Alcohol or Acetone. Be sure to tighten the lid on the bucket of any material not used to avoid water and/or solvent evaporation.

Technical Data

The data below was gathered at temperatures of 72-75°F and 30-50% RH

Packaging	5 Gallon kits
Mix Ratio by Volume	N/A
Mixed Viscosity	150-350 cP 25°C/77°F
Work Time	N/A
Dry to Touch	30-60 minutes
Through Dry	60-90 minutes
Dry to Walk	60-90 minutes
Dry to Light Use	2-4 hours
Full Cure	5-7 days
Pendulum Hardness (König)	50 @ 24 hours
Pendulum Hardness (König)	90 @ 7 days
Gloss @ 60 Degree Angle	>90
VOC's of Mixed Material	<50 g/l EPA Method 24
Color Scale	0.5-1.0 per ASTM D1500
Solids by Volume Mixed	35%
Application in Mils	2-3 (500 – 800 sq.ft./gal.)
Available Colors	Clear

PHYSICAL PROPERTIES
U-35 1K WB ACRYLIC URETHANE SEALER

Description	Standard	Results
Tensile Strength	ASTM C307	2,380 psi
Moisture Absorption	ASTM C413	<.17 weight increase
Coefficient of Thermal Lineal Expansion	ASTM C531	N/A
Compressive Strength	ASTM C579	N/A
Modulus of Elasticity	ASTM C580	N/A
Flexural Strength	ASTM C580	3,550 psi
Water Vapor Transmission	ASTM D1653	See ASTM D3010
Impact Resistance	ASTM D2794	>160 inch pounds
Independent Certificate from third party testing agency	ASTM D3010	N/A
Adhesion	ASTM D3359	5A
Abrasion Resistance CS17 1000 g 1000cycles in g Loss	ASTM D4060	0.022g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included)
Adhesion to Steel	ASTM D4541	>1,000 psi
Hiding Power	ASTM D5150	N/A
Flammability When Adhered to Concrete	ASTM D635	Self-Extinguishing
Adhesion to Concrete	ASTM D7234	>450 psi Substrate failure
Coefficient of Friction Dry Ave. three tests	NFSI B101.0	0.72
Coefficient of Friction Wet Ave. three tests	NFSI B101.1	0.67
Accelerated Weathering Testing	ASTM G154	Non-yellowing

* Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws

* Store material between 60-80 degrees F in a protected dry location.

Test data has been gathered from testing conducted by independent, internal and third-party testing. The best way to compare coating performance is by head-to-head independent testing as this removes the numerous variables found between testing standards, equipment and testing agencies.

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