Made in the USA with domestic and imported ingredients.

POLYMER NATION CHEMICAL COMPANY, LLC

Setting the Standard

405 Oakwood Ave
Waukegan, IL 60085

847-774-5038 | www.polymernation.com | sales@polymernation.com

TECHNICAL DATA SHEET: F-41 SLQ CLEAR UV RESISTANT 100% SOLIDS EPOXY QUARTZ SLURRY

Product Overview

F-41 SLQ consists of our clear, UV resistant epoxy and proprietary ultra-fine color quartz blends to create a 1/8" decorative floor finish. This mixture allows the installer to blend 8 custom colors to create a unique floor finish. When PN 1321 Glint is added to the mix, the finish comes alive with light reflectivity. The cured material has high compressive strength (three times that of concrete), great impact resistance and can be finish-coated with various epoxy and polyaspartic topcoats.

Uses and Benefits

F-41 SLQ is primarily used to create an inexpensive, decorative and durable floor finish. With the appropriate conditions and a skilled installer, it can be installed in 2 days after preparation.

Limitations

Each mix of F-41 SLQ will cover 80 sq. ft. at 1/8" theoretical coverage. A waste factor of 10% should be contemplated. Ideal application temperatures to be between 60-90°F. Cooler temperatures will increase cure times. Warmer temperatures will decrease working and cure times. Verify that substrate temperature is above 5 degrees of dewpoint during application and cure of material to avoid a potential amine blush.

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.

Mixing

A mixture consists of 2 gal A, 1 gal B and 50 LB. of C (PN 1321 F). Combine part A and B into a single container, large enough to accept the entire kit (1 mix equals 6.5 gallons when Part C is added). Premix liquids at 350 RPM for 1 minutes. Pour Part C (PN 1321 F) into the mixed resin and continue mixing until a homogenous slurry is achieved (2-3 minutes usually), making sure not to introduce excessive air into the solution.

Application

Pour material on to floor and spread using a screed rake with #2 Cams or a 1/4" notched metal tool. Once material has leveled, back roll with a spiked roller to aid in the release of trapped air. Whenever possible, work the shorter distance not the longer as this will help keep a fresh edge and make for easier blending. Temperature should be descending, not ascending during application and cure of slurry. This is critical whenever a broadcast will not be cast into the wet slurry. Concrete can be primed with P-03 prior to this application. Recoat should be within 24 hours. Clean tools with a solvent similar to Xylene or Acetone.

Technical Data

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

Packaging	3 Gallon kits + Agg
Mix Ratio by Volume	2:1
Mixed Viscosity	600-700 cP 25°C/77°F
Gel Time	60 minutes
Dry to Touch	5-6 hours
Through Dry	10-12 hours
Dry to Walk	15 hours
Dry to Light Use	24 hours
Full Cure	7 days
Shore D Hardness	D65 @ 24 hours
Shore D Hardness	D78 @ 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	100%
Application in inches	1/8" (80 sq.ft./mix)
Available Colors	System color is generated by the combination of aggregate blends

PHYSICAL PROPERTIES
F-41 SLQ CLEAR UV RESISTANT 100% SOLIDS SLURRY EPOXY QUARTZ SLURRY

Description	Standard	Results
Tensile Strength	ASTM C307	2,870 psi
Moisture Absorption	ASTM C413	<.2 weight increase
Coefficient of Thermal Lineal Expansion	ASTM C531	24.5 x 10-6 in/in/F
Compressive Strength	ASTM C579	15,200 psi
Modulus of Elasticity	ASTM C580	1,300 psi
Flexural Strength	ASTM C580	5,000 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	N/A
Abrasion Resistance CS17 1000 g 1000cycles in g Loss	ASTM D4060	0.083g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included)
Adhesion to Steel	ASTM D4541	N/A
Hiding Power	ASTM D5150	N/A
Flammability When Adhered to Concrete	ASTM D635	Self-Extinguishing
Adhesion to Concrete	ASTM D7234	>450 Substrate failure
Coefficient of Friction Dry Ave. three tests	NFSI B101.0	0.75
Coefficient of Friction Wet Ave. three tests	NFSI B101.1	0.7
Accelerated Weathering Testing	ASTM G154	Slight 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.