Polymer Nation Chemical Company, LLC
405 Oakwood Ave, Waukegan, IL 60085 | (847)774-5038
polymernation.com | sales@polymernation.com

MISCELLANEOUS

# F-10 SL

TECHNICAL DATA SHEET

| COMPONENTS | SOLIDS | VOC | MIX RATIO |
|---|---|---|---|
| 3 | 100% | <50 g/l | 2:1 + 50 lb Agg |

## DESCRIPTION

F-10 SL combines our pigmented, nonylphenol-free, epoxy resin, our blended cycloaliphatic curing agent and our Slurry Aggregate PN 1360 to create an easy-to-use slurry material. This mixture allows the installer to create a pigmented, high-build, epoxy flooring system in a shorter amount of time than double broadcasting the floor. The cured material has high compressive strength (three times that of concrete), great impact resistance and a broad range of resistance to chemical attack. It is virtually odor-free.

## RECOMMENDED USES

F-10 SL is primarily used as a fast-setting epoxy overlay to protect and/or repair concrete when sloping is not required. On solid concrete, the system is self-priming and with the appropriate conditions and a skilled installer it can be left as a high-build, single step flooring system. When conditions or skill do not allow a one step process, a broadcast of select aggregates and fillers can be used to help level the floor and release trapped air.

## LIMITATIONS

F-10 SL is designed to be applied at 1/8" (66 sq.ft./kit). 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. 310.2R-2013 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 gallon F-10 SL Part A, 1 gallon F-10 SL Part B and 50 LB. of C (PN 1360). 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 using an appropriate mixing blade or mixing machine. Pour Part C into the mixed resin and continue mixing until a homogenous mortar is achieved (2-3 minutes usually), making sure not to introduce excessive air into the solution.

## APPLICATION

Pour material on to floor and spread to desired thickness using a screed rake or notched squeegee. Once material has leveled, back roll with a spiked roller to aid in the release of trapped air. If a broadcast has been selected, begin broadcasting evenly across the floor, following the same order in which the slurry was installed. 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. Recoat within 24 hours. Clean tools with a solvent similar to Xylene or Acetone.

## COMPONENTS




Part A




Part B




Part C

## GENERAL PRODUCT INFORMATION

| | |
|---|---|
| **Chemistry** | Miscellaneous |
| **Color / Finish** | Gray |
| **Number of Components** | 3 |
| **Solids by Volume** | 100% |
| **VOC (Mixed)** | <50 g/l |
| **Mix Ratio** | 2:1 + 50 lb Agg |
| **Mixed Viscosity** | 300-400 cP |
| **Gel / Working Time** | 25-35 minutes |
| **Application Temperature** | 60-90°F |
| **Odor** | Subtle |

It is always preferred to mix the entire kit, whenever possible, to avoid off-ratio mixtures

25°C/77°F

Warmer temperatures will decrease working and cure times.

## PHYSICAL PROPERTIES

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

| | | |
|---|---|---|
| **Hardness** | D65 @ 24 hours / D78 @ 7 days | Shore D |
| **Tensile Strength** | 2,870 psi | ASTM C307 |
| **Compressive Strength** | 15,200 psi | ASTM C579 |
| **Flexural Strength** | 5,000 psi | ASTM C580 |
| **Abrasion — Taber CS-17** | 0.083g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included) | ASTM D4060 |
| **Impact Resistance** | >160 inch pounds | ASTM D2794 |
| **Adhesion to Concrete** | >450 Substrate failure | ASTM D7234 |
| **Gloss @ 60°** | 60-70 | |
| **Color Scale** | 0.5-1.0 | ASTM D1500 |
| **Accelerated Weathering** | N/A | ASTM G154 |
| **Moisture Absorption** | <.2 weight increase | ASTM C413 |
| **Coefficient of Thermal Lineal Expansion** | 24.5 x 10-6 in/in/F° | ASTM C531 |
| **Water Vapor Transmission** | See ASTM D3010 | ASTM D1653 |
| **Independent Certificate — Third-Party Testing** | N/A | ASTM D3010 |
| **Adhesion** | N/A | ASTM D3359 |
| **Adhesion to Steel** | N/A | ASTM D4541 |
| **Hiding Power** | N/A | ASTM D5150 |
| **Flammability When Adhered to Concrete** | Self-Extinguishing | ASTM D635 |
| **Coefficient of Friction — Dry** | 0.75 | NFSI B101.0 |
| **Coefficient of Friction — Wet** | 0.7 | NFSI B101.1 |

Liquids only

## CURE SCHEDULE

| | |
|---|---|
| **Dry to Touch** | 3-4 hours |
| **Through Dry** | 4-6 hours |
| **Dry to Light Use** | 16-24 hours |
| **Full Cure** | 5-7 days |

## COVERAGE & PACKAGING

| | |
|---|---|
| **Coverage Rate** | 66 sq.ft./kit |
| **Application Thickness** | 1/8" (66 sq.ft./kit) |
| **Recoat Window** | Recoat within 24 hours. |
| **Packaging** | 3 Gallon kit + Agg |
| **Number of Mixes per Kit** | 1 |

## STORAGE, HANDLING & SAFETY

Store at 60-80 degrees F. Store material between 60-80 degrees F in a protected dry location. Refer to the current Safety Data Sheet (SDS) for this product before handling, mixing, or applying. Use appropriate personal protective equipment and ensure adequate ventilation during application and cure. Dispose of material, containers, solvents, etc., per Federal, State and local guideline, rules and laws

### TEST DATA

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.

### TYPICAL VALUES

The information here is general information to help our customers determine whether our products suit their specific applications. Our products are intended for sale to commercial and industrial customers. We require that customers inspect and test our products before use to satisfy themselves as to the content and suitability for the applications they intend to use our products. Nothing herein shall constitute any warranty expressed or implied, including any warranty of merchantability or fitness for a particular purpose, nor is any protection from any law or patent to be inferred. The exclusive remedy for all proven claims is the replacement of our materials, and we shall not be liable for incidental or consequential damages. Polymer Nation Chemical Company LLC, 405 Oakwood Ave. Waukegan, IL 60085. All rights reserved.