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POLYMER NATION CHEMICAL COMPANY, LLC

Setting the Standard

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TECHNICAL DATA SHEET: F-70 MEDIUM SPEED PIGMENTED POLYASPARTIC

Product Overview

F-70 combines a proprietary blend of polyaspartic resins with aliphatic hardeners to create an intermediate speed, pigmented polyaspartic. F-70 is a 93% solids, low odor, low viscosity polyaspartic that provides easy application with a moderately fast dry time. It will not yellow or chalk over time and provides great opacity which makes it is easy to create a solid looking finish with as little as 6 mils WFT.

Uses and Benefits

F-70 is primarily used as a moderately fast setting, pigmented topcoat due to its unsurpassed UV and abrasion resistance. It can be applied to floors and walls and adheres well to many substrates including concrete, gypsum, cement board, metals and fiberglass.

Limitations

F-70 is designed to be applied between 6-15 mils as a topcoat for floors and 4-6 mils as a topcoat on walls. Ideal application temperatures to be between 50-80°F and 60% RH or less. Cooler temperatures will increase cure times. Warmer temperatures 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.

Mixing

It is always recommended to mix the entire kit, whenever possible, to avoid off-ratio mixtures. Mix ratio is 2 parts F-70 Part A to 1 part F-70 Part B. Combine all of part A and B into a single container, large enough to except the entire kit. Mix using a 350 RPM mixer using an appropriate mixing blade for 1.5 – 2.5 minutes making sure to not introduce excessive air into the material.

Application

Pour ribbon of mixed material onto the floor and spread using a flat blade or notched squeegee. Back roll material immediately using a 3/8" nap roller cover to maintain an even mil thickness of material while maintain a wet edge. Pour

next ribbon on top of wet material and repeat the process. Recoat 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, 15, 165 Gallon kits |
| Mix Ratio by Volume | 2:1 |
| Mixed Viscosity | 600-700 cP 25°C/77°F |
| Gel Time | N/A |
| Dry to Touch | 1-2 hours |
| Through Dry | 5-7 hours |
| Dry to Walk | 7-9 hours |
| Dry to Light Use | 12-16 hours |
| Full Cure | 7 days |
| Pendulum Hardness (König) | 18 @ 24 hours |
| Pendulum Hardness (König) | 50 @ 7 days |
| Gloss @ 60 Degree Angle | >90 |
| VOC's of Mixed Material (calculated) | <100 g/L |
| Color Scale | N/A |
| Solids by Volume Mixed | 93% |
| Application in Mils | 4-15 (110 – 400 sq. ft./gal.) |
| Available Colors | White, Light Gray, Warm Sun |

PHYSICAL PROPERTIES F-70 MEDIUM SPEED PIGMENTED POLYASPARTIC

| Description | Standard | Results |
|---|-------------|---|
| Tensile Strength | ASTM C307 | 3,270 psi |
| Moisture Absorption | ASTM C413 | <.2 weight increase |
| Coefficient of Thermal Lineal Expansion | ASTM C531 | 15-17 x 10 ⁻⁶ 27-30 x 10 ⁻⁶ |
| Compressive Strength | ASTM C579 | 12,500 psi |
| Modulus of Elasticity | ASTM C580 | N/A |
| Flexural Strength | ASTM C580 | 5,550 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 | 2-5/175 When pigmented |
| 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 | 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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