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POLYMER NATION CHEMICAL COMPANY, LLC

Setting the Standard

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TECHNICAL DATA SHEET: SP-17 RAPID PATCH LIQUID - ALIPHATIC

Product Overview

SP-17 combines our fastest setting polyaspartic resin with our proprietary aliphatic hardener blend to create a rapid pour and patch system. By incorporating a variety of fillers and 1339 colorants, SP-17 can be used as a UV stable joint fill material that can be scraped in 30-45 minutes.

Uses and Benefits

SP-17 is most often used to fill joints and cracks when color stability is important.

Limitations

SP-17 can be installed at almost any temperature. 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

This material is extremely fast reacting. Only mix what can be poured out in 3-4 minutes from initial mixing. A starting point mixture may consist of 2 FL. OZ. A, 2 FL. OZ. B and 245 grams of aggregate (about 5 FL. OZ.). Aggregate size and the fluidity of the mixed material is based upon user preference and application parameters. Combine 1 part A and 1 part B into a single container, large enough to accept the entire kit. Mix liquids at 200 RPM for 30 seconds using an appropriate mixing blade. Immediately add the aggregate into the mixed resin and agitate for 1 minute.

Application

Immediately pour the entire mixed content from the container into the area to be filled. Patch may be shaved in 30 min. to 1 hr. and ground after 2 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 | 2 Gallon kits |
| Mix Ratio by Volume | 1:1 |
| Mixed Viscosity | 300-cP 25°C/77°F |
| Gel Time | 5 minutes |
| Dry to Touch | 30 minutes |
| Through Dry | 45 minutes |
| Dry to Grind | 2 hours |
| Dry to Light Use | 3hours |
| Full Cure | 2 days |
| Shore D Hardness | D65 @ 24 hours |
| Shore D Hardness | D81 @ 7 days |
| Gloss @ 60 Degree Angle | 30-40 |
| 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 MILS | N/A |
| Available Colors | Clear and Color Packs |

PHYSICAL PROPERTIES SP-17 RAPID PATCH LIQUID - ALIPHATIC

| Description | Standard | Results |
|---|-------------|---|
| Tensile Strength | ASTM C307 | 2,870 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 | 13,000 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 | 0.043g 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 | 2-5/200 |
| 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 | N/A |
| Coefficient of Friction Wet Ave. three tests | NFSI B101.1 | N/A |
| Accelerated Weathering Testing | ASTM G154 | N/A |

* 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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