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POLYMER NATION CHEMICAL COMPANY, LLC

Setting the Standard

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TECHNICAL DATA SHEET: SP-10 FLEXIBLE JOINT FILLER

Product Overview

SP-10 is a flexible aromatic urethane joint filler that has extreme tensile strength and elongation while maintaining a mid-level D shore hardness. It is easy to install and can be shaved or filled to precision without the need to shave. It is designed to allow concrete joints to move freely while reinforcing the shoulder walls of control and expansion joints in concrete.

Uses and Benefits

SP-10 is primarily used as a pigmented joint filler. It can also be used as a flexible pore filler on foam and as a patching material in soft floor applications.

Limitations

SP-10 kit will fill 308 LF of 1/4" X 1/4" joints theoretical coverage. A waste factor of 10-15% should be contemplated when mixing and installing. 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

Do not split kits. Combine all of part A and B into a single container, large enough to accept the entire kit. Mix at 350 RPM for 1-2 minutes using an appropriate mixing blade and making sure not to introduce excessive air into the solution.

Application

Pour the entire content from a plastic container, that can be deformed at the opening to make a pour spout and pour into the joint (backer rod in 50% compression are dry sand filling half joint depth is recommended in the base of the joint prior to filling). Material that overflows the joint can be scraped with a sharp blade as soon as the material has taken its initial set. 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	1 Gallon kits
Mix Ratio by Volume	0.86 gal A, 0.14 gal B
Mixed Viscosity	2500 cP 25°C/77°F
Gel Time	23 minutes
Dry to Touch	2.5 hours
Through Dry	4 hours
Dry to Walk	8 hours
Dry to Light Use	12 hours
Full Cure	7 days
Shore D Hardness	D20 @ 24 hours
Shore D Hardness	D45 @ 7 days
Gloss @ 60 Degree Angle	82-85
VOC's of Mixed Material	<50 g/l EPA Method 24
Color Scale	N/A
Solids by Volume Mixed	100%
Application in Mils	N/A
Available Colors	Light Gray, Beige, Tile Red, Black

PHYSICAL PROPERTIES
SP-10 FLEXIBLE JOINT FILLER

Description	Standard	Results
Tensile Strength	ASTM D412	1,890 psi
Moisture Absorption	ASTM C413	<.2 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	N/A
Elongation	ASTM D412	1102.3% Unfilled
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	N/A
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	0.7
Coefficient of Friction Wet Ave. three tests	NFSI B101.1	0.65
Accelerated Weathering Testing	ASTM G154	Moderate yellowing

* Dispose of material, containers, solvents, etc., per Federal, State and local guidelines, 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.

Revised: 3/25/25