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URETHANES

SP-20

TECHNICAL DATA SHEET

COMPONENTS	SOLIDS	VOC	MIX RATIO
2	100%	<50 g/l	4.30 gal A, 0.70 gal B

DESCRIPTION

SP-20 is a flexible aromatic urethane coating that has extreme tensile strength with an A shore hardness of 75. It is easy to install, has low odor and has tensile elongation properties of over 1000%. It far outperforms epoxy membranes in crack-bridging and as a waterproofing membrane under Polymer Nation floor systems.

RECOMMENDED USES

SP-20 is primarily used as a membrane in parking decks and waterproofing applications. It can also be used as a flexible broadcast resin, as a binder in flexible floor applications and bulked up using fumed silica to make a flexible patching paste.

LIMITATIONS

SP-20 is designed to be applied between 20-30 mils. It is not intended as a finish coat as it will amber. Ideal application temperatures to be between 60-90 degrees Fahrenheit. 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 1.5-2.5 minutes using an appropriate mixing blade and making sure not to introduce excessive air into the solution.

APPLICATION

Before application of SP-20, the surface must be primed with a suitable primer such as P-03 WB Epoxy or P-99 MVB Epoxy and lightly seeded with silica broadcast sand. Pour entire content of mixed material onto the floor in ribbons. Spread material using a flat blade or v-notched squeegee. Back roll material using a 3/8" nap roller cover to maintain an even mil thickness of material. Material can also be bucket rolled on smaller projects. Recoat within 2-24 hours. When a thicker membrane is desired, mix PN 1620 S with a full kit. This mix will cover 160 square feet at 60 mils and spread evenly up to 200 mils. Clean tools with a solvent similar to Xylene or Acetone.

COMPONENTS

Part A

Part B

GENERAL PRODUCT INFORMATION

Chemistry	Urethanes
Color / Finish	Light Gray
Number of Components	2
Solids by Volume	100%
VOC (Mixed)	<50 g/l
Mix Ratio	4.30 gal A, 0.70 gal B
Mixed Viscosity	2000 cP
Gel / Working Time	15-20 minutes
Gel Time	"" (empty string - the codebase's delete sentinel; do NOT write the words N/A)
Application Temperature	60-90°F
Odor	"" (empty string - the codebase's delete sentinel; do NOT write the words N/A)

Part A - 4.30 gal, Part B - 0.70 gal

Do not split kits.

25°C/77°F. Warmer temperatures will reduce viscosity and lower temperatures will increase viscosity

PHYSICAL PROPERTIES

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

Hardness	40 @ 24 hours / 75 @ 7 days	Shore A
Tensile Strength	2,870 psi	ASTM C307
Compressive Strength	N/A	ASTM C579
Flexural Strength	5,550 psi	ASTM C580
Abrasion — Taber CS-17	0.043g Loss	ASTM D4060
Impact Resistance	>160 inch pounds	ASTM D2794
Adhesion to Concrete	>450 Substrate failure	ASTM D7234
Gloss @ 60°	75-80	
Accelerated Weathering	N/A guidelines, rules and laws.	ASTM G154
Moisture Absorption	<.2 weight increase	ASTM C413
Coefficient of Thermal Lineal Expansion	15-17 x 10-6 27-30 x 10-6	ASTM C531
Water Vapor Transmission	See ASTM D3010	ASTM D1653
Independent Certificate — Third-Party Testing	N/A	ASTM D3010
Adhesion	5A	ASTM D3359
Adhesion to Steel	>1,000 psi	ASTM D4541
Hiding Power	2-5/200	ASTM D5150
Flammability When Adhered to Concrete	Self-Extinguishing	ASTM D635
Coefficient of Friction — Wet	N/A	NFSI B101.1

ASTM D4060 [and move the parenthetical into portalPn.abrasion, making that value: 0.043g Loss (when higher abrasion resistance is required the addition of PC 1336 to the coating should be included)]

Applying material close to dew point will decrease gloss and may result in an amine blush

CURE SCHEDULE

Dry to Touch	2-4 hours
Through Dry	4-6 hours
Dry to Walk	"" (empty string - the codebase's delete sentinel; do NOT write the words N/A)
Dry to Light Use	12-16 hours
Full Cure	7 days

COVERAGE & PACKAGING

Coverage Rate	50-80 sq.ft./gal.
Application Thickness	20-30 mils
Recoat Window	2-24 hours
Packaging	5 Gallon kits

STORAGE, HANDLING & SAFETY

Store at 60-80°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 guidelines, 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.