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POLYUREA AND POLYASPARTICS

# SP-61

TECHNICAL DATA SHEET

| COMPONENTS | SOLIDS | VOC | MIX RATIO |
|---|---|---|---|
| 2 | >96% | <50 g/l | 1:1 |

## DESCRIPTION

SP-61 combines our robust, clear polyaspartic resin with our proprietary aliphatic hardener blend to create the highest quality, polyaspartic available anywhere. SP-61 is an ultra-high solids (< 50 g/L VOC), low viscosity polyaspartic that provides amazing working time and delivers unmatched performance. The UV and abrasion resistance (.027g loss per ASTM 4060) is world-class.

## RECOMMENDED USES

SP-61 is primarily used as a clear 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

SP-61 is designed to be applied between 6-12 mils (135-260 sq ft gal) as a floor topcoat and 5-6 mils (260-300 sq ft gal) as a wall top coat. 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

It is always recommended to mix the entire kit, whenever possible, to avoid off-ratio mixtures. Mix ratio is 1 part SP-61 Part A to 1 part SP-61 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 maintaining a wet edge. Pour next ribbon on top of wet material and repeat the process. Recoat within 2-24 hours. Clean tools with a solvent similar to Xylene or Acetone.

## COMPONENTS

Part A

Part B

## GENERAL PRODUCT INFORMATION

| | |
|---|---|
| **Chemistry** | Polyurea and Polyaspartics |
| **Color / Finish** | Clear and Color Packs |
| **Number of Components** | 2 |
| **Solids by Volume** | >96% |
| **VOC (Mixed)** | <50 g/l |
| **Mix Ratio** | 1:1 |
| **Mixed Viscosity** | 550-650 cP |
| **Gel / Working Time** | 15-20 minutes |
| **Application Temperature** | 60-90°F |
| **Odor** | Very Subtle |

It is always recommended 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** | 12 @ 24 hours / 50 @ 7 days | Pendulum Hardness (König) |
| **Tensile Strength** | 3,270 psi | ASTM C307 |
| **Compressive Strength** | N/A | ASTM C579 |
| **Flexural Strength** | 5,150 psi | ASTM C580 |
| **Abrasion — Taber CS-17** | 0.024g 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°** | 90+ | |
| **Accelerated Weathering** | Non-yellowing | 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** | N/A | ASTM D4541 |
| **Hiding Power** | 2-5/175 When pigmented | 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 |

## CURE SCHEDULE

| | |
|---|---|
| **Dry to Touch** | 4-6 hours |
| **Through Dry** | 10-12 hours |
| **Dry to Walk** | 16 hours |
| **Dry to Light Use** | 24 hours |
| **Full Cure** | 7 days |

## COVERAGE & PACKAGING

| | |
|---|---|
| **Coverage Rate** | 135 – 300 sq. ft./gal. |
| **Application Thickness** | 5-12 mils |
| **Recoat Window** | 2-24 hours |
| **Packaging** | 2, 10 Gallon kits |

## STORAGE, HANDLING & SAFETY

Store at 60-85 degrees F. Store material between 60-85 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.