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PATCHING, JOINT, COVE

W-52 CK

TECHNICAL DATA SHEET

COMPONENTS	SOLIDS	VOC	MIX RATIO
3	>99%	Near zero; <50 g/l	Part A - 44.5 oz.; Part B - 32 oz.; Part C - 30 lbs.

DESCRIPTION

W-52 CK Urethane Concrete Cove Base is a high-performance 3-part system formulated for industrial coving. It combines a water-based urethane resin and aromatic hardener with a proprietary blend of Portland cement, lime and fillers (PN 1352-30 CB). It has been formulated to provide the highest degree of impact and thermal shock resistance of any urethane concrete on the market, with very low VOC content (<50 g/l, EPA Method 24), low odor and easy application. It can be applied to green concrete and is used to achieve 1/8"-1/4" thick coving in one pass with a cove trowel.

Each mix consists of Part A - 44.5 oz., Part B - 32 oz. and Part C - 30 lbs.; a kit contains 1.05 gal. Part A, 0.75 gal. Part B and 3 - 30 lb. bags of Part C, for three mixes per kit. With a working time of 15-20 minutes and dry to light use in 16-24 hours, it minimizes downtime while delivering Shore D hardness of D70 @ 24 hours and D78 @ 7 days. Its low odor and easy application make it perfect for industrial coving applications.

W-52 CK is applied over SP-71 (medium speed) or SP-81 (fast speed) polyaspartic primer while the primer is still tacky. C-99 is the preferred trowel lubricant. Each mix covers approximately 32 linear ft. (96 ft./kit) for a 4" cove with 1" radius, or 24 linear ft. (72 ft./kit) for a 6" cove with 1" radius. Colors include Natural, Tile Red, Light Gray, Medium Gray, Dark Gray, Black and Tan. The system is self-extinguishing (ASTM D635), abrasion resistant (0.029g Loss per ASTM D4060), and delivers adhesion to concrete of >450 with substrate failure (ASTM D7234).

RECOMMENDED USES

W-52 CK is primarily used as a cove base around the perimeter base of a room or area. It is used to achieve 1/8"-1/4" thick coving in one pass and can be applied and smoothed with a cove trowel. It can also be applied to green concrete.

LIMITATIONS

Each mix of W-52 CK will cover approximately 32 linear ft. (4" cove with 1" radius) at theoretical coverage. A waste factor of 5% should be contemplated when mixing and installing. Ideal application temperatures to be between 60-90°. 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 condensation which may lead to adhesion issues.

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.

Substrate Prep - Prepare the surface to be primed and coved; ensure that the surface is free of contaminants, dirt or loose impediments and that the substrate is profiled to accept a primer.

MIXING

A kit consists of 1.05 gal. Part A, 0.75 gal. Part B and 3 - 30 lb. bags of Part C (PN 1352-30 CB); there are 3 mixes per kit (see Technical Data section or chart on Page 2 for individual mix volumes).

Combine part A and B into a single container, large enough to accept an entire mix (1 mix equals ~ 3 gallons when Part C is added). Premix liquids at low speed for 15-30 seconds using an appropriate mixing blade or mixing machine. Add Part C into the mixed resin and continue mixing until a homogenous mortar is achieved (2-3 minutes usually). Do no mix more than can be applied in a 10-15 minute span.

APPLICATION

Primer - Depending on temperature and the desired time between priming and coving, use SP-71 (medium speed) or SP-81 (fast speed) polyaspartic to prime the substrate on which W-52 CK will be applied. While the PN polyaspartic primer is still tacky (before through dry), proceed with application of W-52 CK.

Cove Base - Use appropriate tooling (ex: margin trowel, wide putty knife) to apply W-52 CK to the cove area; use a cove trowel to smooth and finish the cove base. C-99 is the preferred material for use as trowel lubricant; using C-99 in a mist spray bottle either directly to the trowel or directly to the applied cove material is recommended.

Recoat within 24 hours. Clean tools with a solvent similar to Denatured Alcohol or Acetone.

COMPONENTS

Part A

Part B

Part C

GENERAL PRODUCT INFORMATION

Chemistry	Patching, Joint, Cove
Color / Finish	Natural, Tile Red, Light Gray, Medium Gray, Dark Gray, Black, Tan
Number of Components	3
Solids by Volume	>99%
VOC (Mixed)	Near zero; <50 g/l
Mix Ratio	Part A - 44.5 oz.; Part B - 32 oz.; Part C - 30 lbs.
Mixed Viscosity	300 cP
Gel / Working Time	15-20 minutes
Application Temperature	60-90°
Odor	Low

Mixed

Mix Ratio per mix; 3 mixes per kit

25°C/77°F (A&B)

PHYSICAL PROPERTIES

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

Hardness	D70 @ 24 hours / D78 @ 7 days	Shore D Hardness
Tensile Strength	1,400 psi	ASTM C307
Compressive Strength	8,000 psi	ASTM C579
Flexural Strength	2,500 psi	ASTM C580
Abrasion — Taber CS-17	0.029g Loss	ASTM D4060
Impact Resistance	>160 inch pounds	ASTM D2794
Adhesion to Concrete	>450 Substrate failure	ASTM D7234
Gloss @ 60°	30-50	
Color Scale	0.5-1.0	ASTM D1500
Accelerated Weathering	Significant yellowing	ASTM G154

ASTM D4060, CS17 1000 g 1000cycles in g Loss. When higher abrasion resistance is required the addition of PC 1336 to the coating should be included.

ASTM D2794. The addition of PC 1244 drastically improves performance.

60 Degree Angle

CURE SCHEDULE

Dry to Touch	2-3 hours
Through Dry	4-8 hours
Dry to Light Use	16-24 hours
Full Cure	7 days

COVERAGE & PACKAGING

Coverage Rate	4" Cove with 1" radius: 32 feet (96 ft./kit); 6" Cove with 1" radius: 24 feet (72 ft./kit)
Application Thickness	1/8" - 1/4"
Recoat Window	Within 24 hours
Packaging	1.05 gal. A; 0.75 gal. B; 3 - 30 lb. Bags
Number of Mixes per Kit	Three-mix Kit

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 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.