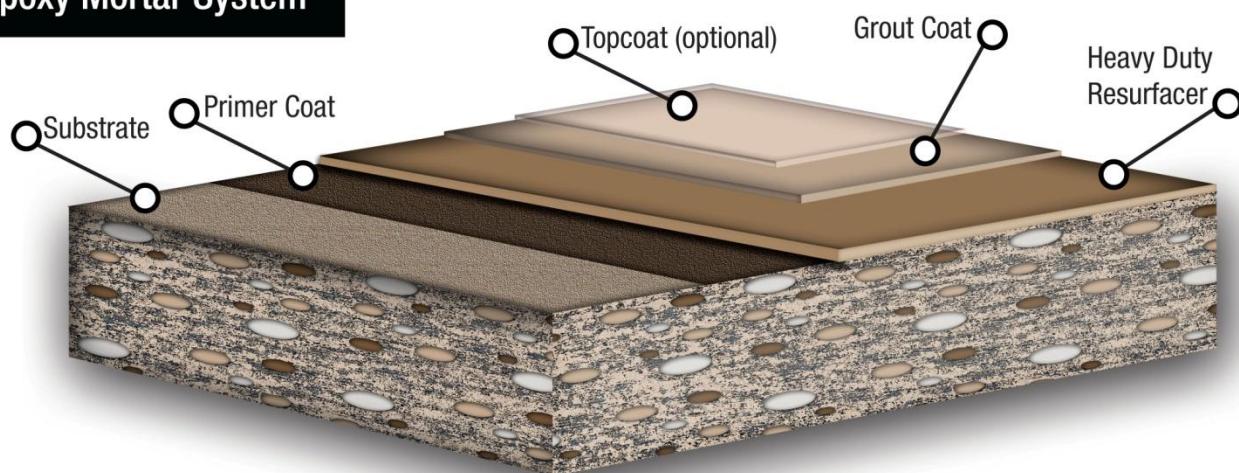


# RIGID-ROCK RS-42CR – Extreme Chemical Resistant Epoxy System

## Epoxy Mortar System



RS-42CR is an Extreme Chemical Resistant Novolac Epoxy Mortar Flooring System is a troweled, high strength concrete resurfacing material. It is used for environments requiring an industrial grade protective floor or when a concrete floor has sustained damage requiring a 3/16" to 1/4" surface restoration.

The system described is APS's standard system, APS has several other product options that also work for this system including, but not limited to low odor or low VOC products. Consult your sales representative for details.

### BENEFITS

- Resurfaces and repairs damaged or inferior concrete floors
- Great physical strengths
- Extreme chemical resistant
- Excellent wear characteristics
- Specially blended aggregate engineered for quicker, easier, and tighter trowel ability
- Mortar binder is available in several colors and natural (unpigmented)
- Aggregate is packaged in 37 lb. bags to provide accurate proportioning with mortar binder
- Typical application between 1/8" and 1/4" application

### RECOMMENDED FOR

- Beverage and Food Process areas
- Bulk Chemical Storage
- Metal Plating Areas
- Secondary Containment
- Laboratories
- Animal care centers
- Service areas
- Anywhere a chemical resistant resurfacer is required.

APS also has available several crack fillers, joint sealant and other support products. Please inquiry with your sales representative for more information on these products.

See individual component product data sheets for specific product properties. Refer to individual data sheets for preparation, mixing and application instructions and limitations, warranty and common chemical resistance information.

### PHYSICAL PROPERTIES

Property	Test Method	Result
Adhesion		340 psi concrete failure
**Flexural Strength	ASTM D790	10,120 psi
**Compressive Strength	ASTM D695	9,440 psi
**Tensile Strength	ASTM D638	6,550 psi
**Elongation		2.9%
Impact Resistance		Excellent
Abrasion Resistance	CS-17 1000/500	20 mg
Application Temperature		55° to 90° F

See individual component product data sheets for specific product properties (\*\*neat resin)

SYSTEM COMPONENTS (approx 3/16" to 1/4")			
Coat	Product	Mix Rate	Coverage
Primer	RR 4456 Liquids as a Primer	1.5:1	200 to 267 sf/gal
Mortar	RR 1456 Epoxy Mortar	1.5:1	38 sf/gal
Grout Coat	ST 4459 Grout Coat	2:1	125 sf @ 12 mils 267 sf @ 6 mils
Wear Coat	ST 4423 High Build Novolac Epoxy Coating	2:1	125 sf @ 12 mils 267 sf @ 6 mils

Multiple Options Available

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**PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be above 55°F to prevent product crystallization.

**SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. We recommend that an aggressive shot blast be performed prior to the application of this product. A less adequate method would be acid etching, but the etch should properly profile the substrate. All edges and around columns or beams should be mechanically scarified. All termination points should not be feather edged, but should be saw cut with the termination ending at the saw cut. All large cracks should be V cut and filled with an appropriate crack filler. All expansion joints should be filled with an appropriate joint filler. When overlaying an expansion joint, a single saw cut though the epoxy overlay will prevent random fracturing. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

**PRIMER MIXING:** Mix the liquids in an oversized container thoroughly and until streak free. No induction time is necessary. The mix ratio is two to one by volume. Improper mixing may result in product failure.

**PRIMER APPLICATION:** Apply the mixed material to the substrate with a brush or roller at the recommended thickness. While the primer is still wet, apply the epoxy overlay over the wet power trowel primer. Follow the procedures for placing the epoxy mortar overlay from the appropriate technical data sheet. Maintain temperatures within the recommended ranges during the application and curing process. If the epoxy primer tacks off before applying the epoxy mortar overlay, check for an epoxy blush and clean as necessary. Re-apply the power trowel primer over the previous primer and apply the epoxy mortar overlay before the primer tacks off. This product is only intended for use as a primer for epoxy mortar overlays .

**CLEANUP:** Use xylol

**MORTAR MIXING:** Mix the liquids to be used in the power trowel mortar system at the recommended mix ratio. Thoroughly mix the combined components A and B with a jiffy mixer or other suitable equipment. Continue to mix for a couple of minutes to insure the material is mixed well. After the liquids are thoroughly mixed, pour the liquids into a Koel mixer, mud mixer or other suitable mixer (depending on batch size). After the liquids are in the mixer, immediately add the special aggregate blend into the mixer. The amount of aggregate should not exceed 46 pounds of the aggregate to 1 gallon of mixed liquids. For best results, we recommend a 5:1 aggregate to liquid ratio by weight. Mix the aggregate into the liquids thoroughly to insure it is wetted out and uniform in saturation. Improper mixing may result in product failure. (mix ratio: 1.1 gallon mixed liquid to 50# bag of special aggregate)

**MORTAR APPLICATION:** The material can be spread by using a screed box, rake or other suitable equipment. Spread the mixed mortar directly over the wet power trowel primer while wet. Keep in mind that a 3/16 inch depth of power troweled mortar will only yield a nominal compacted depth of 1/8 inch and 3/8 inch depth of power troweled mortar will yield a nominal finished depth of 1/4 inch. We do not recommend a finished depth below 1/8 inch. Power trowel the mortar mix with a slow speed power trowel. When hand troweling the edges, use sufficient downward force to compact the mortar and blend in with the power troweled sections. **PRECAUTIONARY STATEMENT:** (a) Do not over trowel the mortar as this can cause blistering. (b) Air currents directly across or above the mortar can cause blistering. Always use materials (liquids) from the same batch or (especially when using colored systems) properly box the material prior to using.

**CLEANUP:** Use xylol

**GROUT COAT MIXING:** This product has a mix ratio of 2 parts A (9.25#/gallon) to 1 part B (3.95#/gallon) by volume for standard. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We recommend that the kits not be broken down unless suitable weighing equipment is available. However, a direct 2:1 mix proportioning by volume can be employed. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Continue mixing for another couple of minutes to insure a

homogeneous mixture. Make sure you scrape the bottom and sides of the pail while mixing. Improper mixing may result in product failure.

**GROUT COAT APPLICATION:** After the power troweled mortar is applied and sufficiently cured (about 8 hours at 70-80°F), grind off all high spots and trowel marks before applying the grout coat. Make certain that the epoxy mortar overlay where the product is to be applied, is clean, sound and free of all sanding and grinding dust and foreign contaminants. Apply the mixed grout by a flat flexible rubber squeegee so as to spread out the material in a uniform manner removing all excess material from the surface of the mortar; then backroll (removing all excess material) with a fine nap roller. Depending on the porosity of the mortar overlay and the color selected, it may be necessary to apply more than one coat of material to achieve uniform coverage. When applied properly, the texture of the mortar will still be visible. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.

**CLEANUP:** Use xylol

**OPTIONAL TOPCOAT (Wear Coat) PRODUCT MIXING:** This product has a two to one mix ratio by volume, mix two gallons of part A with 1 gallon part B. (volumes approximate) After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Avoid whipping air into the coating. Improper mixing may result in product failure.

**TOPCOATING GROUT COAT:** After the grout coat has cured, Coat before 24 hours to achieve proper bonding.. If topcoating after 24 hours, it would be recommended that you degloss the grout coat before applying the optional topcoat. The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. It is best to maintain a wet edge to avoid roller marks. Direct sunlight or high temperatures may cause visible roller marking during application. Exposure to certain types of lighting such as sodium vapor lights may cause the product to discolor.

**CLEANUP:** Use xylol.

**FLOOR CLEANING:** Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

**RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

## NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. **Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.**