Rigid-Rock RR 1230

APPLIED POLYMER SOLUTIONS, LLC

PRODUCT PROFILE

GENERIC DESCRIPTION RR 1230 consists of a two component polymer packaged in a 300mlx300ml dual cartridge system with a 3/8" x 40 element static mixing nozzle, retainer nut and flow control valve.

RECOMMENDED USAGE Industrial repairing of spalled concrete, holes, cracks and thresholds or uneven concrete slabs .
NOT RECOMMENDED for expansion cracks.

COLORS Gray colored when mixed and cured. The gray color will not develop until the curing process takes place.

CHARACTERISTS/FINISHES

SURFACE Smooth.

PRIMERS None required.

TOPCOATS/FINISHES None required; however, many epoxies and urethanes are compatible. Contact your sales representative for proper topcoat system selections. Multiple coats are required when topcoating over mortar.

TECHNICAL SPECIFICATIONS

SOLIDS BY WEIGHT Nearly 100% (mixed)

THICKNESS Can be applied at variable thicknesses with the use of any dry sand aggregate.

VOLITALE ORGANICS 5.5 grams per liter cured

MIX RATIO 1:1 by Volume.

APPLICATION TEMP 20°F - 90°F (4°C - 32C°) - Sub-Zero based on discussion with Rep

CURE SCHEDULE

Cure State	70°F (21°C)
Pot Life	1 - 3 minutes
Trim/Recoat	1 hour
Cure/Traffic	10 - 20 minutes

STORAGE TEMP 50°F - 85F° (10°C - 30°C) in a dry area. Avoid excessive heat and freezing unmixed resins.

SHELF LIFE 1 years in an unopened container

PACKAGING All kits are premeasured, ready for blending and application

Size	Part A	Part B	Coverage w/ sand (1/4" x 1/4") / kit
Dual 300 ml Cartridge	300 ml	300 ml	100 lin. ft.

Published technical data and instructions may be modified at any time without prior notice. Please contact your Applied Polymer Solutions representative with any questions.

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TECHNICAL SPECIFICATIONS (continued)

COMPRESSIVE STRENGTH	4,400 psi @ ASTM D695
TENSILE STRENGTH	4,500 psi @ ASTM D638
BOND STRENGTH	535 psi (concrete failure)
IMPACT RESISTANCE	Excellent
ABRASION RESISTANCE	Excellent
ULTIMATE ELONGATION	5%-6% at 70F (ASTM D-412)
HARDNESS	Shore D = 71
VISCOSITY	30 cps (typical)
WEATHERING	Good Stability

SURFACE PREPARATION

SURFACE All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. We recommend that all loose concrete, previous crack compound or other foreign material be removed to leave a clean sound crack at least 2" deep. For best results, edges should be sawcut and sand should be placed into the crack to the top of the crack.

MOISTURE Allow concrete to cure for 28 to 45 days. Verify dryness by testing for moisture with a "plastic film" test; this can be done at room temperature by placing a 4' x 4' 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. Should moisture be present, perform Moisture Vapor Emission Rate testing using Anhydrous Calcium Chloride (ASTM F1869). Moisture content should not be in excess of 3 lbs. per 1,000 sq. ft. for coatings (5 lbs. for resurfacers) in a 24 hour period.

MOST SURFACES We recommend that all loose concrete, previous crack compound or other foreign material to be removed to leave a clean sound crack at least 2" deep.

FILLING & PATCHING Cracks that have spalled and rounded, know as bull-nosed, should be cut and rebuild with epoxy mortar/ patch. Epoxy mortar once cured should be saw cut to re-establish the crack.

EXPANSION CRACKS For best results, edges should be sawcut and a one inch backer rod should be placed into the crack leaving approximately 1 to 1 1/2 inches from the top of the backer rod to the top of the crack.

APPLICATION

MIXING It is important that the material be mixed well. Improper mixing will cause an incomplete cure and soft spots in the crack. Mix one part by volume part A to one part by volume of part B. This product has a very short pot life of 1-2 minutes and should be applied using plural component pump equipment using a 3/8" diameter 40 element tip. ALWAYS dispense a small beginning portion onto cardboard to prevent non-mixed material from entering crack. Improper mixing may result in product failure.

APPLICATION For priming for patch work, use the liquid as dispensed from the dual cartridge system with static mixing nozzle. This will allow for greater penetration into the concrete.
Make sure the material applied is uniform in color which would indicate the product is mixed well. If marbling occurs, review your application equipment to ascertain if it will correctly mix the material. Apply the mixed product by pumping the mixed material into the expansion crack to be repaired. Remove any excess material with a putty knife or similar tool. Maintain temperatures within the recommended ranges during the application and curing process. When temperatures are lower, allow more time for this material to cure.

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APPLICATION (CONTINUED)

RECOAT/TOPCOAT No recoating or topcoating is necessary. However, if you opt to topcoat the applied crack compound, allow it to cure before topcoating. It is not necessary to prime over the crack compound prior to topcoating the crack compound. Many epoxies and urethanes can be used. In some instances, especially when excessive expansion crack movement is involved, topcoats may chip or crack. However, most epoxy or topcoat products will adhere to the crack compound very well.

CLEAN UP Citrus based cleaners or solvents such as Xylene.

**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.*

LIMITATIONS

FLOOR CLEANING Caution! Some cleaners may affect the color of the floor installed. 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.

DO NOT POINT TUBES UPWARD AFTER THE MIXING NOZZLE HAS BEEN ATTACHED AND PRODUCT HAS BEEN DISPENSED AS THIS MAY CAUSE MATERIAL TO FLOW BACK INTO THE TUBES AND CAUSE CLOGGING OR GELATION.

Because of the quick cure time for this product, it is best to work with one small area at a time. If the material is allowed to stand for more than 1 minutes after initial use, then the material in the static mixing nozzle will partially cure. If the material in the mixing nozzle is allowed to cure, then the nozzle must be removed and a new nozzle attached. The material in the individual tubes are unaffected by the curing of the product in the nozzle.

Color stability may be affected by environmental conditions such as high humidity or chemical exposure. Product may discolor if exposed to certain types of light such as sodium vapor lighting. Product is not UV color stable.

Color may vary slightly from tube set to tube set.

Color of material applied in a crack may exhibit some cloudiness in some areas and more clarity in others.

Substrate temperature must be 5^0 F above dew point.

All new concrete must be cured for at least 30 days prior to application.

When applying material in cold areas, make sure the surface is clean and dry. Also, it is best to keep the material at normal room temperature.

Always apply a test area and become familiar with the amount of time available before the product begins to cure as well as to evaluate the suitability for the product in the area where the product is to be used.

Physical properties are typical values and not specifications.

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APPLICATION (CONTINUED)

MIXING AND APPLICATION INSTRUCTIONS (RIGID-ROCK RR 1230)

1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be above 55^0 F to prevent product crystallization.

2) **SURFACE PREPARATION:** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. For repair of spalled concrete, a stiff wire brush can be used to remove all loose concrete. After wire brushing the spalled area, remove all loose dust and debris with an industrial vacuum.

3) **PRIMER:** The material is self-priming. It is beneficial to discard a portion at the beginning to avoid unmixed material being used.

4) **PRODUCT MIXING:** The product is mixed as it spirals its way through the static mixing tip..

5) **PRODUCT APPLICATION:**

Assemble tube set, nozzle, end cap, flow control valve, and applicator tool as well as wire brush, trowel and aggregate sand.

To assemble, hold tubes with tip facing upward. First, remove protective cap from tube set. Next, remove the two end caps from each tube. Place the control valve onto the end of the tube and place the static mix nozzle over the tube set ends. Finally, slip the screw collar over the tip and tighten on the tube set and then place the tube set into the tube applicator.

Apply a thin layer of the mixed liquids from the cartridge set onto the concrete. For larger areas, it may be beneficial to use a small brush to spread the liquids to evenly cover the repair area.

Sprinkle dry sand onto the repair area until the level of sand fills the hole and levels the repair area until level with rest of the floor surface (left). Then saturate the sand with the liquid. Reapply more sand and liquid as needed until the area is built up level to floor (right)

Finally, trowel the floor to smooth out the area and remove any excess material. Allow the material to cure for ten to twenty minutes before foot traffic. Immediately after you are through using the liquids from the tube set, remove the static nozzle and place the end caps back on each tube as this will allow the use of the tubes for later repairs. For heavy equipment such as fork trucks, allow the material to cure for a half hour to an hour before using area that has been patched.