

# Swirl Pattern Instructions



Concrete Solutions Polymer Concrete Swirl Pattern Finish is a decorative, slip-resistant finish most commonly used on parking decks, driveways, ramps and pool decks. While its attractive, decorative half circle woven finish provides excellent slip resistance, the grooved lines in the swirl pattern also give excellent longevity. When the texture coat application is dry, Concrete Solutions Concrete Colorcoat can be used to achieve a uniform colored finish. Concrete Solutions Sealcoat 1000 is recommended over the Concrete Colorcoat on driveways for extra stain resistance. For residential or commercial pool decks, Concrete Colorcoat can be applied without a sealer or Sealcoat 1000 can be applied for extra stain resistance.

## PRODUCTS AND TOOLS NEEDED

Application Steps	Product Name	Coverage Rate	Tools for Application
Apply a Bond Coat of Polymer Concrete	OPTION 1: Concrete Polymer (Mix with water, cement & sand)	150 – 250 sqft per gallon of polymer	<ul style="list-style-type: none"> <li>• 24" metal squeegee</li> <li>• hand trowel</li> </ul>
	OPTION 2: Concrete Polymer (Mix with premixed 50 lb bag mix - (Resurfacer-RBM))	150 – 250 sqft per bag mix	
	OPTION 3: Resurfacer (Mix with water)	150 – 250 sqft per bag mix	
Apply a Swirl Pattern Finish Application of Polymer Concrete	OPTION 1: Concrete Polymer (Mix with water, cement & sand)	150 – 250 sqft per gallon of polymer	<ul style="list-style-type: none"> <li>• 24" metal squeegee</li> <li>• texture brush</li> <li>• fine broom finish broom</li> </ul>
	OPTION 2: Concrete Polymer (Mix with premixed 50 lb bag mix - (Resurfacer-RBM))	150 – 250 sqft per bag mix	
	OPTION 3: Resurfacer (Mix with water)	150 – 250 sqft per bag mix	
Apply a First Coat of Concrete Colorcoat	Concrete Colorcoat	300 sqft per gallon of Concrete Colorcoat	<ul style="list-style-type: none"> <li>• 3/8 – 1/2" nap paint roller or airless sprayer</li> </ul>
Apply a Second Coat of Concrete Colorcoat	Concrete Colorcoat	300 sqft per gallon of Concrete Colorcoat	<ul style="list-style-type: none"> <li>• 3/8 – 1/2" nap paint roller or airless sprayer</li> </ul>
Apply one or two coats of Sealcoat 1000	Sealcoat 1000 (Apply undiluted using a pump-up sprayer and a soft broom)	400 sqft per gallon	<ul style="list-style-type: none"> <li>• pump-up or airless sprayer</li> <li>• soft flag tip broom</li> </ul>

## SURFACE PREPARATION

Surface Preparation is often the most important part of a successful coating or resurfacing application. Surface must be clean, sound, and free from oil, dirt, waxes, or any other contaminant that may interfere with bonding. Popular methods of surface preparation include grinding, shotblasting, and/or scrubbing with detergent, acid etching, neutralizing, and pressure washing. The type of surface preparation needed will depend on the condition of the substrate to be repaired, resurfaced, textured, stamped, colorcoated and/or sealed. **For commercial and industrial indoor jobs**, grinding is required to prepare the surface. **For residential indoor jobs**, scrubbing with detergent, acid washing, neutralizing, rinsing and wet/dry vacuuming is recommended. **For most outdoor jobs**, the surface can be cleaned by detergent scrubbing, acid washing and pressure washing. The following is a step-by-step procedure.

- 1. Protect the walls** with tape and plastic before scrubbing or rinsing.
- 2. Scrub and rinse the floors.** First dampen the surface with water in 100 to 200 sq. ft. sections at a time using a water hose. Using the floor polisher machine, scrub the dampened surface with a strong detergent (such as

Simple Green) diluted 2 to 1 or 5 to 1 with water. For oil spots use straight detergent with no dilution. While scrubbing, use a water hose and trigger gun nozzle to clean the surface behind the floor polisher. For large open areas such as a warehouse floors, etc., a 3000 psi (or higher) pressure washer with a 15 degree or spinner tip on the end of the gun can be used to clean behind the floor polisher. Rinse immediately behind the floor polisher, so the residue does not dry on the surface. Use a rubber squeegee and/or broom to keep the dirty water from running back into the rinsed clean areas. **Use a wet/dry vacuum** (one or more depending on the size of the job) to remove the dirty water and detergent from the surface. The persons scrubbing, rinsing, squeegeeing and vacuuming should all work closely together doing a section at a time. After rinsing the surface clean, check the oil spots by rubbing them with a white rag. If the rag gets dirty, it will need to be scrubbed with a heavy duty detergent using a floor polisher machine and then rinsed clean prior to using a grinder.

**3. If the surface is coated with a paint or sealer**, it will be necessary to remove the coating using a paint stripper, sandblaster, shotblaster or surface grinder. If a shotblaster is used, a dustless grinder can be used to clean the edges where the shotblaster cannot reach.

**4. Open the concrete pores.** Acid washing is recommended to etch a concrete surface when grinding, shot-blasting or sandblasting is not possible or unavailable. Opening the concrete pores allows the coating material to get good adhesion or bite into the substrate. Always wear the appropriate safety protection. The proper procedure to acid wash a concrete surface is as follows:

- a. Mix a solution in a 5 gallon pail consisting of 4 parts water and 1 part muriatic, hydrochloric or phosphoric acid. ALWAYS ADD THE ACID TO THE WATER FOR SAFETY AND TO AVOID SPLATTERING.
- b. Dampen the surface with water (no puddles) before applying the acid solution.
- c. Pour or spray the acid solution onto the dampened concrete surface. When spraying, use an acid-resistant pump-up sprayer.
- d. Scrub the acid solution evenly over the surface using an acid-resistant broom. Allow the acid solution to sit on the surface and work for 3 – 5 minutes etching the concrete. Do not allow any areas on the concrete to dry during the etching process. If this occurs, spray more water or acid solution to keep the surface wet.
- e. Once the acid solution stops fizzing, spray a solution of 10 parts water and 1 part household ammonia onto the acid solution to increase the pH and neutralize it prior to rinsing.
- f. Thoroughly rinse any acid residue off the concrete surface using a pressure washer. Pre-wet any surfaces the acid solution will be rinsed over. If indoors, rinse with water a section at a time and remove the water and acid solution with a wet/dry vacuum.

**CRACK & JOINT REPAIR**

Structural moving cracks should be repaired/treated with Concrete Solutions Crack Repair System prior to applying Texture-Top or any other Concrete Solutions polymer concrete products. Please refer to Concrete Solutions Crack Repair Instructions for the complete and detailed procedure.

**PATCHING, LEVELING, REPITCHING**

Before applying the Concrete Solutions Swirl Pattern Finish, the surface should be semi-smooth to achieve the best results. If needed, patch any holes, gouges or deteriorated areas of the surface with a Concrete Solutions Concrete Patching Mix. The polymer concrete patching mix can also be used to fill in low spots, level an uneven surface or re-pitch areas with improper drainage. See the Concrete Solutions Training Manual under Patching and Leveling for detailed mixing and application instructions with step-by-step pictures.

**MIXING INSTRUCTIONS**

**BOND COAT MIXING FORMULA (OPTION 1)**

**Mix by Volume**

1 Part	Concrete Polymer
1 Part	Water (Clean)
2 Parts	Cement (Portland Type I/II, regular and/or white cement)
2 Parts	Silica Sand (#60 or 90)

**Note:** To make a four gallon mix in a five gallon bucket which should cover approximately 150 sq ft., mix one gallon of Polymer, one gallon of Water, two gallons of Cement and two gallons of #60 silica sand. Mix with a drill and mixing paddle for 3 – 5 minutes.

**The Bond Mix is also available premixed. Resurfacer** is a just-add-water premixed bag mix while **Resurfacer-RBM** requires adding water and concrete polymer.

**SWIRL PATTERN MIXING FORMULA (OPTION 1)**

**Mix by Volume**

- 1 Part Concrete Polymer
- 1 Parts Water (Clean)
- 2 Parts Cement (Portland Type I/II, regular and/or white cement)
- 2 – 4 Parts Silica Sand – #60 and #90 (50-50) = fine texture  
#30 and #60 (50-50) = medium texture

**Coverage Rate** – 150 square feet per gallon of Concrete Polymer

**Directions** – Put the liquid ingredients (the concrete polymer and water) into the mixing container. Start the mixer (a 1/2 inch drill motor and mixing blade for smaller batches; a plaster or mortar mixer for larger batches) and slowly add the cement and sand. Mix all of the ingredients together thoroughly three to five minutes to achieve a homogeneous, no lump consistency.

For a harder, more durable finish, use silica carbide or harder than sand granules in place of the silica sand or after placement of the swirl pattern broadcast some fine, harder than sand granules like silicon carbide into the wet polymer concrete material so that these granules will be encapsulated by the Concrete Colorcoat and/or Sealcoat 1000 application.

**If premixed bag mixes are preferred**, Resurfacer or Resurfacer-RBM can be substituted for the cement and silica sand combination. Resurfacer is a just-add-water premixed bag mix. Resurfacer-RBM bag mix requires adding water and concrete polymer.

**Note:** For an attractive, whiter color or a more natural concrete look, premix the cement as follows: 4 parts white cement to 1 part regular gray cement.

**APPLICATION INSTRUCTIONS**

A texture brush (commonly used for-wallpapering) can be used in place of a broom for a smaller swirl pattern look. It is an excellent tool for providing the Swirl Pattern Finish on steps and in smaller areas where a broom may be awkward to use.

1. Once the Concrete Solutions Polymer Concrete Bond Coat has been applied and is dry enough to walk on, usually within one to two hours, the Swirl Pattern Finish Application can begin. Fog the surface lightly with water (no puddles], in preparation for the Swirl Pattern Finish.
2. The Swirl Pattern Finish is applied with a texture brush (on steps and small areas) or a broom (on parking decks, ramps, driveways, etc.)
3. After fogging the surface with water, pour a row of Polymer Concrete material along the starting edge. Using a 24" wide broom or a 12" wide texture brush, spread the material from side to side 5 to 10 feet down from the starting edge.
4. Walk up to one of the starting edge corners and begin making half circles in a straight line to the opposite corner (parallel with the starting edge). Make each swirl half way into the previous swirl. When you reach the opposite corner, begin a second row of swirls directly below the first row.
5. Proceed in the opposite direction making a second row of half circle swirls in a straight line parallel with the starting edge and blending approximately half way into the first row of swirls. Continue back and forth, side to side, in this manner to achieve a uniform pattern of swirls. When you reach the end of a row, begin another row making your Swirl Patterns in the opposite direction, parallel to the previous row. Continue back and forth in this manner (alternating directions) until the entire surface has been covered with the Swirl Pattern Finish. Pour and spread more material as needed five to ten foot sections at a time. Clean tools with water before material dries.



Apply a Bond Coat using a 24" metal edge squeegee.



Make sure surrounding areas are taped off and fog the surface with water where you wish to begin spreading the material.

**SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)**

Chemical systems require the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

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