ReCon Texture and Staining Guide

At ReCon we have been focused on "The Aesthetics You Want as well as The Performance You Need". "Performance" is often the primary focus of engineers and contractors. On the other hand, "Aesthetics" can be an important focus for architects and customers. In this Staining and Texture Guide, we will be focusing on the aesthetic options available to ReCon customers.

<u>Textures</u>

Re Con Retaining Walls

The ReCon Wall System provides a selection of five different textures; Northshore Granite, LeSueur County Limestone, Rustic, Weathered Edge, and Old World.

Northshore Granite is ReCon's first and most popular texture. It provides the full 48" X 16" face size in a natural weathered granite finish. It comes in 6 different individual face variations, which if inverted in the form during the production process can create 12 different individual block textures. Northshore Granite looks great "unstained" in its natural grey concrete finish, but at times the addition of color is requested by the customer.

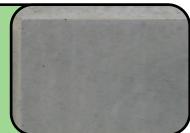
LeSueur County Limestone takes its name from the natural limestone found in the central portion of the State of Minnesota. Again, it provides the full 48" X 16" face size. It comes in 4 different individual face variations, which if inverted in the form during the production process can create 8 different individual block textures. Again, this texture looks great unstained, but is frequently stained to a natural buff / tan color.

Rustic provides an option for customers that are seeking the appearance of a smaller block combined with the mass and convenience of our full size block. Rustic offers 8" coursing with individual block faces running from 8" to 30" in width at the face. Rustic comes in 3 different individual face variations, which if inverted in the form creates 6 different individual block textures. Rustic looks great in its natural grey concrete finish.

Weathered Edge is ReCon's most recent addition to its texture choices. It creates a natural stacked stone appearance, introducing a natural randomness and an enhanced depth of texture. The stone sizes that appear at the face of the wall range in heights from 3" to 16" and widths from 9" to 48". Most of the Weathered Edge walls are stained to enhance the natural appearance of the wall.

Old World represents a departure from the natural stone textures that ReCon is generally known for. With Old World, the customer will receive a block that has a smooth face with chamfered edges. It has been utilized to replicate old concrete blocks with an industrial look and then again it has been utilized on projects where the surrounding buildings are contemporary and thus clean straight lines are desired. The Old World is at times "sand blasted" to distress the face, and at other times it is stained.











Please check out the ReCon website under Products, Gravity and Grid Retaining Walls, to find photos of each of the ReCon textures (a separate pdf file exists for each texture).

Please also refer to the ReCon CSI Master Format Specification Section 2.2, A., 7. for suggested guidance on how to specify the texture desired for the project.

Please note that it is important to check with your local ReCon Block producer for the textures that they produce. Not all textures are available in each market.

Staining & Sealing

Overview

The vast majority of the producers that manufacture the ReCon block produce the block in a natural concrete grey color (no stain added). If the customer wants their wall to be stained, it is generally done by applying a concrete stain after the wall has been built. A select few ReCon producers have introduced a "dust in stain" which results in a block that has color on the face when delivered to the jobsite (check the local producer, this is an exception, not the rule). Adding a stain to the wall is an aesthetic enhancement. It is not required from a durability perspective.

The ReCon Block is manufactured from wet cast air entrained concrete with a minimum 4000 psi. It is a durable product that is resistant to the adverse effects of freeze thaw cycles, road salts, and brackish water. Sealers can, however, be added as an additional element of protection against road salts and freeze thaw cycles.

Staining

There is a range of staining products that can be used to stain a concrete surface. These range from water born concrete stains, acid etch stains, and hybrids products that combine features of both.

Water born stains are easy to apply and environmentally friendly. They come is a very wide range of colors (from light tans to deep brown, gray, charcoal and even black). Variation in the color of the wall can be achieved by applying multiple highlights after the base coat has been applied.

Acid etch stains require an additional degree of care and skill to properly apply. Acid etch stains create deep colors (usually dark browns and rusts) and a natural variation in the color which adds to the authenticity of the finished wall appearance.

ReCon's specification covers only the water born products. For additional information on acid etch stains and hybrid stains, please contact ReCon.

- 1. Before staining, the wall should be power washed and allowed to dry. This removes any dirt and / or form oil from the face of the block. This is very important.
- Recommended stains include Sherwin Williams H & C Concrete Stain Solid Color Water-Based or TK Products Stain #5272. Both are latex / water based and can be applied with either an electric airless sprayer or a compressed air sprayer. Sherwin Williams is available at retail outlets across the country. For a distributor of the TK Products near you, contact TK Products at 11400 West 47th Street, Minnetonka, MN 55343, 1-800-441-2129.
- 3. Color selection is an important consideration. Customers may ask for a "ReCon color chart". No such chart exits, because most customers want a multi-color stain that matches the look and color pallet of existing natural stones at the site or incorporated into a building on site. Thus, it is recommended that the customer provide to the staining contractor a sample of the natural stone / color that they want to replicate. That natural stone sample can then be taken to the stain distributor and used to mix the base coat and the highlights. Some staining contractors may have samples that they can provide to you to choose from.
- 4. The wall can be stained a one coat one color stain, or it can be stained with a base color and then highlighted with several different shades to more closely approximate a weathered natural stone look. Generally, the "highlights" are applied to several blocks in a random fashion, and then before the highlights dry, they are wiped out with a wet sponge. This helps to blend the highlights into the block, creating a natural appearance.

- 5. For specification purposes, the number of highlights desired should be disclosed, as each highlight will add slightly to the cost of the staining process. For example, the specification may indicate "a base coat and two highlights".
- 6. Application of the stain should follow the stain manufacturer's recommendations. Generally, there will be a requirement to prepare the concrete (power wash and dry), a recommendation of at least 28-day strength to the concrete, and a minimum / maximum temperature range at time of staining.

Sealing

- 1. Some customers ask that their wall be sealed. This may be particularly relevant if the wall is in a road splash zone where winter road salts might get on the face of the wall.
- 2. If you are using the TK Products stain, then TK Products also sells a number of sealers that are compatible with their stains, including TK-TRI-Siloxane 290-12. This is a solvent-based Siloxane sealer. Follow the manufacturer's recommendations for preparation and application. The blocks must be completely and thoroughly dry before sealing. This is more than just dry to the surface touch. The water and the mineral based sealer do not mix. Thus, after the power wash, you will need dry warm weather and the passage of time before the sealer can be applied. Yes, the sealer is applied *before* the stain is applied. This sealer actually penetrates into the concrete.

Water Born Stains

Water Born Concrete Stains offer a wide range of color choices. Each of these ReCon Block "slices" represents a "base coat" and one or two "highlights".



The water born staining process generally begins with a power wash, then a base coat, followed by one or two highlights. The highlights are "blended" into the blocks using a wet sponge to wipe the highlights off the block before they dry.







The finished product with a water born stain can be compelling!



Acid Etch Stains

Although ReCon does not have a recommendation on the staining product to be selected for an acid stain, these stains do provide a second option to consider. The colors achieved are generally limited to the darker browns and rust colors. The dilution ratio between the acid stain product and water as well as the volume of stain applied can also change the depth of color achieved. Several photos are shown of these stains. Again, follow the stain manufacturer's recommendation for proper application.



This sample shows an acid etch stain, with varying stain to water dilution ratios.

Staining color choices are often finalized in the field. Several blocks near the bottom of the wall are stained in a range of colors for the customer / architect to examine and select from. Here the staining contractor has stacked up a number of natural stones that the customer had selected and then created several color combinations for the customer to view.





The acid etch stains can create a deep and rich color pallet, with natural variation in the color resulting from slight differences resulting from the thickness of the stain being applied.

Finally, the application of a membrane (as apposed to a penetration) sealer over the top of an acid etch stain can make the stains "pop". They are generally available in sheen and in matte. This display wall shows a section that has been sealed (left portion of wall) and a section that is simply stained without a sealer.

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