



## Description

StoneScapes® is a formulated pool finish system which utilizes naturally occurring quartz pebble, specialty aggregates, high quality iron oxide pigments, and white Portland cement to create a pool finish that represents the best that mother nature has to offer, enhanced by advanced technologies. The end result is a spectacular and long lasting pool finish. StoneScapes® is ideal for both commercial and residential installations due to its strength, integrity, texture, color palette, and over all aesthetic appeal. To maximize the performance and service life of any StoneScapes® pool finish make sure to use Lobo - NPT Pool Finish Modifier in each batch to achieve the highest compressive strength as well as a more tenacious bond with the substrate as well higher resistance to degradation by chemical imbalance or abuse.

## Benefits

Strength, Durability, Longevity, Etch Resistance, Ease of Maintenance, Wide Range Standard Color Palette, Custom Colors Available, POOLCORP® Supported, 10 Year Standard Warranty

## Color Lightness Analysis Test

NPT Brand	NPT Color	Dry				Munsell Value *	Wet				Munsell Value *
		CIE Values			LRV		CIE Values			LRV	
		L*	a*	b*			L*	a*	b*		
StoneScapes	Kenai Gray Micro	41.2	-0.9	-1.4	12.0	4.0	60.5	-0.6	-0.2	28.7	5.9
StoneScapes	Aqua Blue Mirco	45.5	-7.0	-7.4	14.9	4.4	64.9	-5.0	-4.6	33.9	6.3
StoneScapes	Moraine Micro	39.5	-5.2	-7.2	11.0	3.8	59.6	-4.8	-5.3	27.7	5.8
StoneScapes	Black Mirco	35.5	-0.3	-1.1	8.8	3.5	54.3	-0.1	0.0	22.3	5.3
StoneScapes	White Mirco	69.4	0.7	8.8	40.0	6.8	79.7	0.7	7.0	56.2	7.8
StoneScapes	Salt & Pepper Mini	71.4	-1.4	6.5	42.7	7.0	82.5	-1.2	5.0	61.2	8.1
StoneScapes	French Gray Micro	56.4	0.6	4.0	24.3	5.5	71.8	0.8	4.1	43.4	7.0
StoneScapes	French Gray Mini	59.1	0.1	2.3	27.2	5.7	75.2	0.0	2.1	48.7	7.4
StoneScapes	Summit Blue Mirco	71.3	-7.5	-3.9	42.6	7.0	56.6	-12.1	-7.9	24.5	5.5
StoneScapes	Zanzibar White				56.1						
StoneScapes	White Mini				49.7						
StoneScapes	Aqua Cool Mini				45.6						

### Test Lab :

Avian Rochester • P.O. Box 1210 • Webster, NY 14580  
 Test Performed October 22nd, 2019

### Test Method :

British Standard 8493 Light reflectance value (LRV) of a surface.  
 CIE Publication 15.2004 Colorimetry  
 Gretag Macbeth Coloreye 7000A, Serial Number: 37109171099  
 Hemispherical spectrophotometer

### Test Procedure Notes :

These measurements were performed on a recently-standardized GretagMacbeth Coloreye 7000A spectrophotometer. This instrument reports hemispherical radiance factor, using diffuse illumination and 8° detection, specular component included (CIE 15.2004 designation di:8°) LRV is calculated from spectral radiance factor using accepted means defined in CIE Publication 15.2004 and British Standard 8493.



## Test Data

### Dynamic Coefficient of Friction(DCOF) Test Results

DCOF	Color	NPT® Brand	Pool Finish Type
0.73	White - Regular	StoneScapes®	Natural Quartz Pebble
0.71	White - Mini	StoneScapes®	Natural Quartz Pebble
0.67	Aqua White - TOG: Puerto Rico Blend	StoneScapes®	Natural Quartz Pebble + 25% glass bead
0.66	Aqua Cool - TOG: Puerto Rico Blend	StoneScapes®	Natural Quartz Pebble + 25% glass bead

\* Average of three measurements

### Test Lab :

Tile Council of North America, Inc. • 100 Clemson Research Blvd. • Anderson, SC 29625

Test Performed December 28th, 2015

### Test Method :

ANSI A137.1-2012 Section 9.6.1: “Wet Dynamic Coefficient of Friction (DCOF)”

### Test Procedure Notes :

- Samples cleaned with Renovator #120 prior to testing
- Three (3) pool finish samples were tested in all four directions with 10” long measurements
- The SBR sensor was verified using a standard prior to testing.
- Testing was performed under wet conditions using 0.05% SLS water
- Testing was conducted under laboratory conditions at approximately 70°F & 50% relative humidity
- Tested using a calibrated BOT 3000E device.

### Compressive Strength :

9,000 to 10,000 p.s.i. at 28 days utilizing Azteca / NPT® Modifier at 1 bag per standard batch formula

### Lobo Pebble and Quartz | NPT® Modifier:

Lobo™ - NPT Pool Finish Modifier is a high-performance formulated admixture which features pozzolan, polymer and a hydrophobic chemistry designed to enhance all types of pool finishes. The pozzolan reacts with calcium hydroxide formed when cement is hydrated. The polymer protects pigment particles from chemical reaction, locks in pigments and aggregates, and improves the flexibility of the pool finish. Lobo reduces mottling, plaster dust, and increases repellency and stain protection. Experience the improved pool startup result and the satisfied homeowner when using Lobo.

### Benefits:

Improved Color Consistency | Aggregate adhesion | Workability | Overall Durability





## Preparation

StoneScapes® should be applied to a sound surface free of oil, dirt, algae or any other foreign substance. Previously applied paints or sealers must be removed by acid washing and/or sandblasting. Neutralize acid with baking soda or soda ash then thoroughly rinse with water. In addition to, or in partial replacement of the procedures mentioned above, MIRACOTE BC PRO, PERMAKOTE™ or SCTRACH KOTE 2000™ can be used as a bonding coat. Refinished pools must be undercut an appropriate distance around all tile, return lines, light fixtures and main drains. All weepers and plumbing leaks should be repaired with water stop cement at least 24 hours prior to plaster application. Failure to properly clean the pool shell prior to application of the StoneScapes® finish may result in an improper bond which can lead to delamination or bond failure.

## Mixing

Using a standard plaster mixer, begin by adding enough clean, potable water to wet (1) bag of aggregate. This creates an abrasive mix that will break up the additives and pigments. ADD (1) bag of Lobo- NPT Pool Finish Modifier now. ADD pigment now if batch formula calls for it. Once the additives and pigments are mixed thoroughly, ADD ⅓rd of the remaining water which should be 20-23 gallons total. Based on Abram's law of water to cement ratio, the correct amount of water under optimal conditions for StoneScapes® is 30-33 gallons per batch. It is recommended not to exceed 35 gallons of water per batch. (*Local environmental conditions may dictate changes to the standard water to cement ratios.*) Less water is better and creates a stronger pool finish. Adding too much water will weaken the plaster matrix and can lead to check (*spider*) cracking as well. ADD cement and then ADD remaining bags of aggregate. Mix will appear stiff which aids in the mixing and blending of the material and helps break up any clumps. Continue to mix for 2-3 minutes before adding remaining water to achieve optimal mix consistency. Continue to mix for an additional 2-3 minutes (*6-8 minutes total mixing time*). Note: most popular paddle mixer is 12 Cubic Feet and has a 1,300-1,400 pound material capacity. If Calcium Chloride needs to be used, follow industry standards of no more than 2% of total cement weight per batch. (*Especially if using pigments, excess Calcium Chloride can affect the quality of the pigments.*) StoneScapes® has 564 pounds of cement per batch. Based on this formula, you should not use more than 11.28 pounds for every StoneScapes® color. A standard DE Scoop holds approximately 3 pounds of Calcium Chloride as a point of reference.

## Pumping

If pumping material to the pool using a plaster pump, please consider the following tips to help maximize the effectiveness of the pump.

1. Set the plaster pump to the lowest gear/shortest stroke by moving the belt.
2. Always begin pumping with a full stroke.
3. Mix (1) bag of EZ Spred in a (5) gallon bucket of water and pump this slurry mixture through the plaster hose right before pumping the StoneScapes® material. This greatly reduces the chances of plugging a hose and or pump manifold.
4. The shorter the length of the plaster hose used to deliver the material, the better.

## Application

Mist pool shell prior to application and throughout the process to keep it moist and prevent excessive absorption moisture in the StoneScapes® material as it is being applied. A hot/dry pool shell will cause rapid loss of moisture, accelerated set time of plaster, and possible failure of material adhering to surface. Apply StoneScapes® evenly 3/8" to 1/2" thick. Material that is too thin will dry too quickly, and material that is too thick will take longer to set and can trap moisture (*hydration/graying of finish*). Hard Troweling is essential to a beautiful and long lasting StoneScapes® finish. Hard Troweling is the process of compacting the material so that there is proper compression of the material which drives the larger aggregates down and the smaller aggregates up. Hard troweling also reduces the amount of water in the mixture by bringing it to the surface along with the cement paste mixture. During the application of StoneScapes®, it is recommended to rinse off the excess cement paste and hard trowel/compress the material a minimum of (3) times. After each rinsing phase, the finisher will hard trowel repeatedly to compress the material as tightly as possible. Working the material thoroughly will give the pool finish a very smooth and uniform appearance. Fill all spike holes with aggregate and cement, not just cream.



## Exposure

Proper exposure of the StoneScapes® pool finish can be achieved using a combination of the following procedures with the ultimate goal being a pool surface that closely matches the StoneScapes® sample provided. The best looking StoneScapes® pool finishes are achieved by following the exposure steps outlined below:

1. Finisher repeatedly water wands excess cement paste and hard trowels material. Timing is very important. Rinse too early, and you may remove too much material. Rinse too late, and you will not be able to remove the excess cement and compact the material to make it uniform and smooth. The best finishers Spray Wand Wash and hard trowel a minimum of (3) times. Spray Wand Systems are the preferred method for exposing StoneScapes® during the application phase because it allows for better exposure of the pebble aggregate when done right. Please keep in mind that all StoneScapes® samples are finished using a Spray Wand System.
2. Once the StoneScapes® material has hardened sufficiently (*4 hours minimum, the next day is most common time frame*), it can be Acid Washed. The best acid washes are performed by a (3) man crew, one man dispensing the acid, one man agitating the acid with a broom or brush, and one man keeping everything wet and rinsing with a hose. Ask your local NPT® representative for the guidelines on acid washing.
3. Pressure Washing the StoneScapes® pool finish can be done right after the Acid Wash. Using a fan tip nozzle and a standard pressure washer, thoroughly wash/rinse the entire StoneScapes® pool finish. This wash-down will remove any excess pigment, cement paste, or haze and will leave the pool finish very clean and uniform. Remove all water prior to filling the pool for Start Up.
4. A proper Start Up is critical to the quality, appearance, and longevity of the StoneScapes® pool finish. NPT® specifies that StoneScapes® be started up and maintained following the guidelines set forth by the National Plasterers Council, aka the NPC. Ask your local NPT® representative for a copy, or consult the NPC website at [www.npconline.org](http://www.npconline.org).

**Note on exposure:** Relying completely on an acid wash to expose this finish will typically result in an underexposed pool finish with cement paste (*cement laitance*) covering some of the aggregate. When this happens, the pool surface will not match the sample provided and will ultimately result in lower customer satisfaction.

## Cold Weather Considerations

Installing any NPT pool finish if the ambient air temperature is less than 40° Fahrenheit or 4.4° Celsius is not recommended. It is also very important to make sure that the concrete pool shell is not frozen before applying the pool finish. In cold environments, it is very common to enclose or tent the pool or spa to be plastered prior to installation to help control the ambient air temperature and raise the temperature of the pool shell. If portable heaters are used to heat the enclosure, use of a propane heater is recommended as it burns much cleaner than a diesel fuel heater. Make sure that there is adequate ventilation as a buildup of carbon monoxide can be deadly. Carbon monoxide and carbon dioxide build up inside of a pool or spa enclosure can also have detrimental effects on the new pool finish as well: both can lead to excessive carbonation (turning white) of the pool finish surface. When installing NPT pool finishes in cold environments, it is recommended to heat the water going into the mixer to help keep the plaster material from getting cold quickly. According to the American Concrete Institute ACI, "For every 10°F reduction in concrete temperature, setting time is increased by about one-third. For example, a mix that usually sets in six hours when placed at 70°F would not set for 11 hours when placed at 50°F. This delay increases the available time for placing and finishing, but it also extends the bleeding duration, delays slab finishing, and requires longer crew hours." This note can be applied to cold weather pool finish installation as well. Once the new pool finish is installed, it is important that it be kept from freezing for the first 48 hours to ensure that it has enough time to reach a minimum of 500 P.S.I. This will ensure that it will not be negatively impacted by a freeze/thaw cycle as it hydrates. Allowing the finish to freeze within the first 48 hours can dramatically decrease the strength of the pool finish which may result in a shortened service life. Regardless of the how cold the weather gets, it is very important to never exceed 2% of the total weight of cement when using the set accelerator calcium chloride. Using more calcium chloride than what is recommended may have a negative impact on the pool finish, especially on pigmented finishes which will compromise the pool finish appearance and shorten its service life.



<b>Curing</b>	Care should be taken to protect the <b>StoneScapes®</b> pool finish from rapid drying conditions such as high wind, high temperature, or low humidity. Such precautions may include fogging or misting the surface or placing a protective covering over the pool. Cover should not be placed directly on the aggregate surface.
<b>Filling Procedures</b>	When filling the pool, it is important to do so without interruption of fill water. Fill pool as rapidly as possible. Do not allow main hose length to lay on the aggregate surface as it will leave a mark. Use a sock or clean cloth wrapped around the end of the hose, or tie the end of the hose to a small empty water bottle to allow the hose to float in the water as it begins to fill. Always put the hose in the deepest area of the pool, and do not allow fill water to run down from the shallow end of the pool as the path of the running water will leave a mark on the new pool finish. It is very important to ensure that the pool equipment is functioning properly before the pool finish is applied.
<b>Water Chemistry</b>	The pool water must be carefully balanced from the initial fill/start-up and constantly maintained within the guidelines set forth by the NPC. Maintaining proper chemical balance from first fill is essential to maximize the quality, appearance, and lifespan of the <b>StoneScapes®</b> pool finish. Please consult your local <b>NPT®</b> Representative concerning proper start-up techniques and maintenance guidelines.
<b>Coverage Rates</b>	Coverage rates vary according to local conditions. The NPC Guideline for coverage rates for exposed pebble pool finishes is 200 square feet at ½” thick for a 1,000 lb batch.
<b>Additional Information</b>	View the <b>StoneScapes®</b> Application & Exposure Video. Go To: <a href="https://vimeo.com/409887224">https://vimeo.com/409887224</a>
<b>StoneScapes®</b>	<b>StoneScapes®</b> is a component pool finish which is installed correctly by following a precise formula. Batch Formula Cards are available upon request. Ask your local <b>NPT®</b> representative for a set of batch formula cards for all <b>NPT®</b> pool finishes.

**StoneScapes®** is an **NPT®** pool finish brand.

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