



# SunRestore 112

## RESINOUS CONCRETE PATCHING & REPAIR SYSTEM

### PRODUCT DESCRIPTION

SunRestore is an advanced, thermoset vinyl polymer, formulated for early high strength and quick set times. It can normally be opened to traffic in an hour or less, and with SunRestore Accelerator, within fifteen minutes. SunRestore can be used in cold weather and freezer rooms, down to 0°F, and still receive traffic after 1-3 hours. Thick cross sections, as well as thin spall areas, are repaired with SunRestore, and it's adhesion is greater than the strength of the concrete.

#### Recommended Usage:

- ◆ Repair pot holes and broken concrete
- ◆ Repair spalls in concrete
- ◆ Feather edge, or up to 2" without adding rock
- ◆ Rebuild broken curbs and platforms
- ◆ Repair shipping dock doors & bumpers
- ◆ Parking lots & decks
- ◆ Floors, docks & ramps
- ◆ Non-skid, coating for floors, steps & walk-ways
- ◆ Driveway and sidewalk renovation
- ◆ Rebuild stairways
- ◆ Repair control joints
- ◆ Equipment bases
- ◆ Anchor bolts, posts, and bollards
- ◆ Level concrete

### TECHNICAL INFORMATION

Solids by wt: approx. (@77° F.).....	99%	Tensile Modulus (ASTM D 790).....	182,000 psi
Solids by vol: approx. (@77° F.).....	98%	Tensile Strength (ASTM D 638).....	3,530 psi
Specific Gravity @ 77° F.....	1.08	Flexural Modulus (ASTM D 790).....	390,000 psi
Viscosity @ 77° F.....	500-600 cps	Flexural Strength (ASTM D 790).....	7,340 psi
Flash Point: (ASTM-D-93, Open Cup).....	141°F	Elongation % (ASTM D 638).....	30%
Pot Life With 80% Aggregate:		Water Absorption (ASTM D 570).....	0.64%
@77°F., approx.....	20 min.	Compressive Strength TXDOT.....	>10,000 psi
@100°F., approx.....	12 min.	Tex614-J.....	350 psi
Pot Life Without Aggregate:		Hardness-Shore D (ASTM D 2240).....	79
@77°F., approx.....	13 min.	VOC.....	0
@100°F., approx.....	7 min.	Temperature Limits:	
Linear Shrinkage (filled).....	0%	Continuous.....	175°F
(unfilled).....	1.1%	Intermittent.....	220°F
		Shelf Life @77°F, unopened.....	<b>ONLY 6 mos</b>

### GENERAL INFORMATION

#### Ordering Information & Packaging

Normally sold in 5 gallon pails as a 1 gallon kit: consisting of 1 gal. of 112 Resin, Catalyst, Prime A & B, aggregate, & mixing pails—Ship Wt 60 lbs. SunRestore Accelerator ordered separately. For larger repairs, the 112 Resin is available in 5 gallon pails (special order) along with the other components.

#### THEORETICAL COVERAGE RATES

Large applications: 5 gallons of Resin yields approximately 20 gallons of mixed material (about 3.3 cu.ft.) For broadcast repairs, approx. 50-100 sf per gallon, depending on the type and porosity of the substrate. Yield will also vary depending on the type and size of aggregate used.

1 Gal. SunRestore 112 Complete Kit (5 gal Pail)

- 128 sf @ 1/16" Average Thickness
- 64 sf @ 1/8" Average Thickness
- 32 sf @ 1/4" Average Thickness
- 16 sf @ 1/2" Average Thickness
- 8 sf @ 1" Average Thickness

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## GENERAL INFORMATION CONTINUED

### Surface Preparation

For best, long-term results, a clean, rough concrete surface, free of dirt, oils, curing compounds and other debris should be attained. Scarifying, grinding, chipping, sandblasting, shot-blasting, or other cleaning methods may be required. Any unsound concrete areas should be located with chain or hammer and removed, so that a sound, stable concrete base is established. Surface MUST be dry. Moisture will interfere with the cure process.

### Vehicular Traffic Patch

1. Chip or dry saw-cut a ½" deep vertical shoulder around the area to be repaired so that the SunRestore will be "keyed" into the concrete.
2. Chip out and remove loose and delaminated material and blow or vacuum clean.
3. Determine amount of SunRestore Prime needed, and combine parts A&B in equal amounts. Hand mix to a smooth, consistent color.
4. Wet out repair areas by brushing or rolling a very thin coat of SunRestore Prime onto surfaces and down into all cracks and crevices. This will prime surface and prevent moisture from interfering with the cure.
5. Pour into measuring bucket, the amount of SunRestore needed. With catalyst measuring bottle, loosen chamber lid, squeeze bottle for the proper amount of catalyst, and add to the mix. Power mix for approx. 30 seconds.
6. Measure 3-3½ parts dry blasting sand for 1 part SunRestore Resin. (Approx., 1 gallon SunRestore for 50# bag blast sand). Use less sand for a looser, more self-leveling mix, and more sand for a trowelable material.
7. Using a heavy-duty drill motor and a square mud paddle, mix the sand into the liquid for approximately 1 minute, making sure that the aggregate is thoroughly blended with the resin.
8. Fill void. Screed and/or trowel to final grade. Broom or tine, if needed, then broadcast wet surface with aggregate to remove tack and add increase non-skid.

### Breaks At Joints

1. If joint is unfilled, place a spacer board in it to retain it's function.
2. Prep and repair void exactly the same as above, i.e., clean, chip, blow, prime, fill, and sprinkle sand.
3. Immediately after SunRestore begins to set, tap the end of the spacer board to release it from joint, then fill, if necessary.
4. (OPTION): Same as above, except, instead of using the spacer board, also, clean and fill the joint with SunRestore. Wait about an hour for it to cure, then saw-cut the joint back to original, and fill with joint filler.

### Traffic In 15 Minutes

When mixing SunRestore, mix in the standard catalyst as usual, then add the appropriate amount of SunRestore Accelerator, (as indicated on the measuring bottle), and mix. DO NOT MIX THE TWO CATALYSTS TOGETHER— as a potentially harmful thermal reaction will occur. Immediately mix in the aggregate and dump into repair area. Smooth and finish. The set time is dependent upon the ambient, surface, and material temperatures. Varying the amount of SunRestore Accelerator can also control how fast it will set, but start with the average amount first.

### Vertical & Overhead Repair

To repair vertical and overhead areas, clean & prime area as usual; however, SunRestore Prime needs to tack up so that it is very sticky to the touch. A good test is when a fingerprint can be left from your touch. Otherwise, the patch mix will slip off. It just needs this tackiness to hold on until it cures. To speed this process, and in cold weather, a weed-burner (torch) can be used to warm the concrete just before applying the primer. This can bring about immediate results.

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## GENERAL INFORMATION CONTINUED

The vertical & overhead mix can vary greatly, depending on what is needed, but a good general mix to start with is: 2 parts fumed silica, 2 parts sand and 1 part SunRestore 112 Resin. To stiffen the mix and make it lighter, try a 3-1-1 mix. Some contractors prefer to work with a “dough-like consistency in order to “glove” it in place and strike it off with a trowel. A 6” deep section can be applied in one pass with a small amount of experimentation.

### Overlays & Larger Repairs

In a clean mortar mixer, use 3-3½ parts aggregate to 1 part SunRestore 112 Resin. As normal, add the SunRestore 112 Resin, then the catalyst, and mix for 30 seconds. While the mixer is still turning, add the aggregate and mix for 2 minutes, or until the mixture is totally blended. Dump the mix into a wheelbarrow and transfer to the repair area. If another batch is needed, immediately add uncatalyzed resin to the mixer and allow it to continue turning (no catalyst). This will keep the drum clean until the crew is ready for another batch to be mixed. A screed is used to bring repair to a perfect grade and to produce a smooth, or rough texture, as desired. The wet surface can also be dressed with a broadcast aggregate, but should be done on each pour, before it begins to set. Mixtures can vary, depending on the temperature. Trial batches may be required to determine the proper mix and additives to meet any traffic requirements. Contact Technical Services and we can provide additional support.

### Chemical Resistance Guide

<u>Exposure</u>	<u>Immersion</u>	<u>Splash &amp; Spill</u>
Acid	GOOD	EXCELLENT
Alkalies	GOOD	EXCELLENT
Petroleum	GOOD	GOOD
Saltwater	EXCELLENT	EXCELLENT
Water	EXCELLENT	EXCELLENT

**NOTE:** For specific harsh chemical environments, contact Sundek Products or your sales rep.

\*Dealers and their team must carefully review site conditions, paying particular attention to the physical condition of the substrate, its moisture content, prior surface treatments and preparation, detailing of cracks, joints, transitions and terminations, and any applicable specifications. The theoretical coverage rates stated in our reference materials are for estimating purposes only. Many variables (i.e. coating thickness, material waste, surface profile, cracks, etc.) may affect actual product yields and are the responsibility of the installer.

#### WARRANTY INFORMATION

Sundek Products USA, Inc. guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. SUNDECK PRODUCTS USA, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Sundek Products USA, Inc. shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Sundek Products USA, Inc. shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

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