SINAK
SUSTAINABLE BUILDING SOLUTIONS

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS UL.COM/GG UL 2818
GOLD

S-102™
CONCRETE CURING

S-102™ is formulated to exceed the performance requirements of all concrete water-cure specifications. Use of S-102™ assures that the specified design strengths will be achieved along with development of improved surface durability properties.

FEATURES & BENEFITS

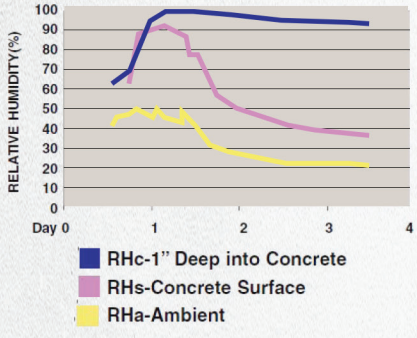
- **Better than water cure**
- **Unlimited shelf-life**
- **Lowers moisture vapor emissions**
- **Prevents cure-related cracking and crazing**
- **Controls slab-curling**
- **Not a bond breaker**
- **All vertical/horizontal concrete**
- **Reduces time in the construction schedule**

S-102™ is a ready-to-use, NO-VOC concrete cure that outperforms all traditional wet-cure methods such as blankets, plastic sheeting, fogging, steam curing, etc. while eliminating the construction delays caused by water curing. S-102™ is the only concrete curing method proven to prevent cure related cracking and crazing, while minimizing or eliminating early-age differential shrinkage (slab-curling). S-102™ is especially effective in hot, windy and low humidity environments. S-102™ does not interfere with the bonding of joint sealants, patching, surface coating materials, paints, lane markers or cement wash treatments. Overspray on reinforcement steel, does not require removal.

WATER RETENTION Exceeds the performance criteria (kg/m2):

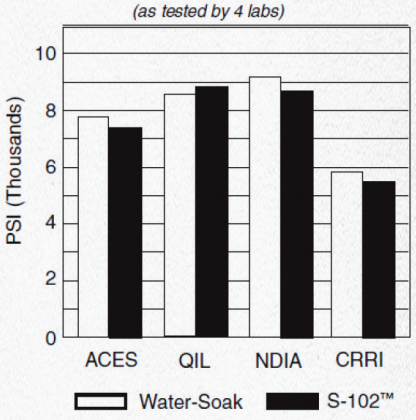
STANDARD	CRITERIA	S-102™
ASTM C 309	0.55	0.38
ASTM C 1315	0.40	0.38
AASHTO M148	0.55	0.38

*Moisture Retention Effectiveness Based on Relative Humidity (RH) Data**



*Zachary Department of Civil Engineering, Texas A&M University for Texas DOT

28 Day Compressive Strength
(as tested by 4 labs)



BS 1881: PART 116
Compressive Strength PSI

	TEST LAB	WATER SOAK	S-102™ CURE	S-102™ %
28 DAYS	ACES	7830	7293	93.1%
	QIL	8726	8871	101.7%
	NDIA	9860	9425	95.6%
	CRRI	5995	5587	93.2%

AASHTO T 277-93/ASTM C 1202-94
Rapid Chloride Permeability Test (28 Days)

SAMPLE	WATER SOAK	S-102™ %
1 (AMPS)	0.1998	0.1226
2 (AMPS)	0.1994	0.1301
3 (AMPS)	0.1999	0.1264
AVG. (AMPS)	0.1997	0.1264
	100%	**63.3%**

SAMPLE	WATER SOAK	S-102™ %
1 (COULOMBS)	3999	2303
2 (COULOMBS)	4027	2513
3 (COULOMBS)	3981	2450
AVG. (COULOMBS)	4002	2422
	100%	**60.5%**

BS 1881: PART 5
Initial Surface Absorption ml/m²/sec (28 Days)

SAMPLE	UNTREATED CONTROL	S-102™ TREATED
10 min	0.07	0.05
30 min	0.06	0.04
1 hour	0.05	0.03
2 hour	0.03	0.02

SURFACE ABRASION RESISTANCE (ASTM C 501)
Increase in abrasion resistance after 1,000 cycles as measured by:

WEAR INDEX: 38% improvement
DEPTH OF WEAR: 21% improvement

SURFACE SCALING (ASTM C 672)
Non-air Entrained concrete after 50 freeze-thaw cycles

	SLIGHT TO MODERATE	S-102™ TREATED
SCALING	Slight to Moderate	None
WEIGHT LOSS	1.5%	None

FREEZE-THAW TESTING (AASHTO T 161/ASTM C 666)
Frost-resistant concrete:

	UNTREATED CONTROL	S-102™ TREATED
146 CYCLES	Slight	None
237 CYCLES	Slight	Slight
480 CYCLES	Slight	Slight

BOND STRENGTH OF EPOXY SYSTEMS
(ASTM C 882 - Shear strength)
No failure of epoxy bond to S-102™ treated shear surfaces. (Concrete failed in compression.)

PULL TESTS-EPOXY
No failure of epoxy bond to S-102™ treated flat surfaces. (Concrete failed in tension.)

BOND STRENGTH OF URETHANE SYSTEMS
(Shear and tensile)
Withstood 4 to 5 times the stress for the stated movement capability specified by the manufacturer.

COMPOSITION AND MATERIALS:
SINAK S-102™ is a water-based liquid with a proprietary formula in solution. It requires NO mixing, diluting or agitation. Color: Water clear; Specific Gravity: 1.1; Net Weight: 9.2 lbs/gal; Dry Solids Content (by weight): 11.1%; Flash Point: none; Toxicity: Non-toxic; VOC: Contains NO

INSTALLATION
GENERAL APPLICATION INSTRUCTIONS:

The application should begin as soon as the surface will readily absorb material; and should be a continuous process from start to finish of the project. The application should not be interrupted except for rain.

1. Remove all debris that may prevent penetration of the S-102™.

2. Apply S-102™ in one or more light, even coats, barely wetting the surface, with a hand pump, backpack, or airless sprayer. Apply as much S-102™ as the surface will readily absorb, surface profile will dictate number of coats and rate of application. If more than one coat is applied immediately apply the next coat after the surface is dry.

NOTE: "Dry" means dry to the touch and the concrete has returned to original color. Drying time will vary from 10 to 30 minutes depending on temperature/environment.

Immediately after the first coat is dry, apply a second coat. NOTE: "Dry" means dry to the touch and the concrete has returned to original color. Drying time will vary from 10 to 30 minutes depending on temperature/environment.

EARLY CURE:
S-102™ may be used for early cure/evaporation control and finishing aide when applied immediately after concrete placement. After finishing the concrete, apply a second coat of S-102™.

IMPORTANT: The treated area is immediately available for foot traffic. A water coat spray is not required but can be used to remove any excess material from a vertical surface.

3. Clean all equipment by rinsing with water.

VERTICAL APPLICATIONS:
For vertical applications a maximum 3/8" nap roller may be used. Product rundown should be anticipated. Use a dry 3/8" nap roller to pick any and all rundown. Should the roller become saturated, change to a new, dry roller. Roller application may be used for both the first and second coat. Allow the first coat to dry to the touch and return back to the original color before applying the second coat. Excess material not picked up by the roller may result in white scaly residue. After the second coat has dried, wet the entire area with a light water spray.

HOT WEATHER APPLICATION: IN HOT, (ABOVE 38 C), DRY AND/OR windy conditions apply S-102™ shortly after loss (evaporation) of surface water or upon completion of Soff-Cut operation. Follow the General Application Instructions.

COLD WEATHER APPLICATION: In freezing temperatures, or if freezing is possible, call SINAK Corporation. After application of S-102™ no other curing method is required.

APPROXIMATE COVERAGE RATES (SUBJECT TO SURFACE FINISH):
12-17 sq. meters per liter

STORAGE AND HANDLING:
Store in cool dry area out of direct sunlight. Must be kept in tightly secured containers to prevent evaporation and contamination. S-102™ MUST be protected from freezing. Product that has frozen will not function as intended, and should be discarded.

AVAILABILITY
S-102™ has an unlimited shelf-life when stored according to the above requirements. SINAK S-102™ is available in 18.9 liter plastic pails, 208 liter drums and 1041 liter biodegradable totes from selected distributors. Red or white color is available for visual inspection and/or reflectivity.

MAINTENANCE
After application, no special maintenance is required.

TECHNICAL ASSISTANCE
Technical assistance is available from manufacturer, from trained field representa-tives.

LIMITED WARRANTY
SINAK warrants its products to be of the highest quality. Since application of the product is a crucial factor in obtain-ing satisfactory results, and is beyond the control of SINAK, refund of pur-chase price or replacement of product shall constitute the limit of SINAK's liability. SINAK makes no other warranties, express or implied, with respect to the products or any service and disclaims all other warranties, including any warranty of merchantability and fitness for a particular purpose. This limited warranty may not be modified by representatives of SINAK, its distributors or dealers.

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