



# TYPE S SURFACE RETARDER

Prevents concrete surface hardening to allow creation of exposed aggregate

February 2017 Version 1.0

## 1. PRODUCT NAME

Type S Surface Retarder

## 2. MANUFACTURER

Type S Surface Retarder is manufactured for

Cemstone Products Company  
2025 Centre Pointe Blvd., Suite 300  
Mendota Heights, MN 55120 USA

Phone: 1-800-CEMSTONE

Local: 651-688-9292

Internet: cemstone.com

## 3. PRODUCT DESCRIPTION

Type S Surface Retarder is a water-based mixture that is applied to freshly placed concrete applications to chemically delay the setting of the mortar at the surface of the concrete. This allows the top layer or surface mortar of sand and cement to be flushed away creating an exposed aggregate decorative finish without damaging the integrity of the concrete slab. A stream of water or scrubbing with a stiff brush is used to create the decorative texture. Surface Retarder can also be used on existing concrete to roughen or open the surface to improve the bonding for coatings or toppings.

## WHEN/WHERE TO USE

- Horizontal only
- Precast panels
- Architectural slabs
- Ramps and curbs
- Patios and pool decks
- Where decorative surfaces are desired
- For enhanced slip-resistance

## ADVANTAGES

- Safe, non-toxic and biodegradable
- Easy application
- Works quickly (average set time to create exposed aggregate is 3-4 hours)
- Ready to use, no diluting
- Retards set-up to depth of up to ¼" (6.3 mm)
- Economical, reduces the cost of preparing surfaces for other coatings
- No brush hammering or sandblasting needed
- Clear, transparent liquid
- Meets Federal EPA VOC requirements.

## Warning

Avoid contact with eyes and skin. If contact with eyes occurs, flood eyes repeatedly with clean water for 15 minutes and see a physician immediately. Do not rub eyes. Wash hands thoroughly after handling or before eating with warm, soapy water. Do not take internally. KEEP OUT OF REACH OF CHILDREN.

## 4. TECHNICAL DATA

TECHNICAL DATA	
Composition and Materials	A clear water-based mixture. No hazardous materials are used in this product. Cemstone products are manufactured with only the finest quality raw materials available and close quality-control is practiced.
Color	Clear
Flash Point	Noncombustible
Working Time	3-4 hours on average
VOC Content	None
A.I.M. Category	Concrete Surface Retarders Maximum VOC 780 g/l

## 5. INSTALLATION

### PREPARATION

Pour concrete flatwork and mechanically tool as needed. If desired, the surface can also be enhanced by topping the finished concrete with uniformly sized pea gravel or desired aggregate and gently tamping down with a float into but not below the surface. After using this product, Cemstone recommends one of these curing compounds on the exposed aggregate: use Siloxane Sealer for a natural look without gloss; use Super Clear Coat Matte for a "wet-look" without gloss; use Super Clear Coat or Super Diamond Glaze for a "wet-look" with gloss. If any concrete admixtures that affect the setting time have been used, a sample section should be done to test for compatibility prior to use of Type S Surface Retarder. Protect all areas not set for treatment from splash, residue, and wind-drift.

### MIXING

Mixture should be gently stirred to blend prior to use. Do not dilute.

## APPLICATION

- Apply when temperatures are between 40°F-90°F (4°C-32°C) and when rain is not expected within 3-4 hours.
- Take care to spray evenly over surface to create a uniform final appearance.

### Application: Same Day

- Spray Type S Surface Retarder evenly while some surface moisture remains at a rate of 150 sq. ft. per gal.
- Leave set, approximately 3-4 hours at 70°F (21°C) until surface can be washed clean without creating surface imperfections or removing the aggregate.

### Application: Overnight

- Spray Type S Surface Retarder evenly while some surface moisture remains at a rate of 150 sq. ft. per gal.
- Cover the entire surface with polyethylene plastic sheeting, making certain the plastic is in smooth and in full contact with the wet surface.
- Allow to set overnight, then wash the surface immediately in the morning. Scrub any remaining cement residue using a soft bristle brush immediately after washing and rinse with water.

*NOTE: It is recommended a sample test should be completed prior to application to insure proper method and technique.*

## CLEAN UP

If a small amount of cement or sand residue remains on the surface, immediately scrub with a soft bristle brush and rinse thoroughly with water. Use warm, soapy water to clean up sprayer and tools.

## COVERAGE

Approximate Coverage	Sq. Ft./ Gal.	M <sup>2</sup> /L
New Concrete	150	3.68

*Note: Coverage may vary due to porosity, wind, temperatures, and condition of concrete.*



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## 6. AVAILABLE SIZES

- 1 gal. bottle (3.78 L)
- 5 gal. pail (18.93 L)
- 55 gal. drum (208 L)

## 7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury, Seller's liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

## 8. MAINTENANCE

Not applicable.

## 9. TECHNICAL SERVICES

The Cemstone office offers assistance with specifications, performance test data and field services.

## 10. FILING SYSTEM

Division 9

## CEMSTONE DISCLAIMER:

Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers. The person(s) specifying or requesting the use of these products is responsible for assuring their suitability for a specific use, as well as the proper application of the products. Where there is any question to the suitability of a particular product, a small test patch is recommended. See also WARRANTY (Section 7).

**FOR PROFESSIONAL USE ONLY**

**WARNING: INJURIOUS TO EYES**

**KEEP OUT OF REACH OF CHILDREN**