

TECHNICAL DATA SHEET

**DESCRIPTION**

TOP-CAST Surface Retarder is a water-based, top-surface retarder which does not require covering with plastic for protection. It is available in 12 depths of etch, each one color and number coded for safety and convenience.

Top-Cast Surface Retarder is part of the TOP-CAST® Decorative Finish System including:

- TOP-CAST® Surface Retarder
- TOP-CAST® SS 100 Site Saver
- TOP-CAST® EX 200 Wash-Off Extender
- TOP-CAST® PR 300 Penetrating Protector
- TOP-CAST® CS 400 Cure and Seal
- TOP-CAST® HG 500 High Gloss Sealer

**USE**

Ideal for cast-in-place flatwork and the top surface of pre-cast concrete panels. The wide selection of grades available provides a comprehensive range of effects, from a simulated light acid wash or sand blast finish up to full exposure of 1-1/2 in. (38 mm) aggregate.

TOP-CAST® is a trademark of GCP Applied Technologies. All rights reserved.

**FEATURES**

- Comprehensive range of etch depths
- Color and Number coded products
- Requires no plastic covering
- Low odor

**voc**

All the Top-Cast grades are compliant with all Canadian and U.S. VOC regulations for sealers including Federal EPA, OTC, LADCO, SCAQMD & CARB.

**Estimating Guide**

Top-Cast will cover approximately 200-300 sq. ft./gal (4.9 - 7.4 sq. m/L).

**Packaging**

All products come in 5 gallon (18.9 L) pails.

Product Code	Item #	Package Color	Estimated Etch Depth
100123	01	White	Very Light Acid Etch Finish
309055	03	Violet	Acid Etch Finish
309056	05	Light Blue	Sandblast Finish
309057	15	Yellow	Up to 1/4" (6.55 mm)
309058	25	Beige	1/8" - 1/4" (3 mm - 6.5 mm)
309059	50	Canary Green	1/8" - 3/8" (3 mm - 9.5 mm)
145523	75	Blue	1/8" - 3/8" (3 mm - 9.5 mm)
145524	100	Gray	3/8" - 1/2" (9.5 mm - 13 mm)
145525	125	Pink	3/8" - 5/8" (9.5 mm - 16 mm)
145526	150	Green	3/8" - 5/8" (9.5 mm - 16 mm)
145527	200	Salmon	5/8" - 1" (16 mm - 25 mm)
145528	250	Orange	1" - 1 1/2" (25 mm - 38 mm)

Quart size samples are available.

**STORAGE**

Top-Cast has a shelf life of two years from date of manufacture, in closed original container. Store out of direct sunlight and between 50°F (10°C) and 90°F (32°C). Do not allow to freeze.

**Surface Preparation:**

In preparation for placement of concrete, protect all curbs, borders, adjacent stones, pavers, etc. with a coat of Top-Cast SS 100. Allow coating to dry before placing concrete.

Prepare Top-Cast Surface Retarder in sprayers, stage appropriately, and ensure the colors and etch matches the area of application.

Place concrete and float or trowel finish. Consult the online Top-Cast User Guide prior to using the Top-Cast for additional concrete mix design and finishing technique considerations.

**Mock Up:**

Always prepare small test panels to determine the most suitable grade to obtain the desired depth of etch. When placing test samples, always simulate job site conditions as well as mix designs to be used on the project to establish the proper grade selection and procedures.

**TECHNICAL DATA SHEET**
**APPLICATION**

Values listed below are for standard mix designs with a minimum 3,500 psi concrete mix. Mixes with more or less cement may yield different results. Always install a mock up to ensure desired results. Contact Dayton Superior for non-standard mix designs.

Additional information is available on-line at [www.daytonsuperior.com](http://www.daytonsuperior.com), including user and placement guides. Please consult these guides prior to product use.

**Concrete Mix Design:**

Cement content and aggregate size and type will affect final appearance. Consult the online Top-Cast User Guide for additional information.

**Mixing**

Mix Top-Cast thoroughly prior to each use.

After mixing, it is recommended to pour through a paint strainer or fine sieve when filling sprayers.

**Placement:**

Refer to the online Top-Cast User Guide for helpful hints on concrete finishing techniques. Apply Top-Cast uniformly to the wet concrete after the evaporation of the initial bleed water. Spray with a low-pressure sprayer (plastic preferred) until the surface has a complete hiding coat. Do not apply too sparingly. Use water for clean up. Once dry (1–2 hours after application depending on ambient temperature and humidity), Top-Cast provides good protection against intermittent rain and does not require additional cover.

For a more consistent etch in varying conditions, and extended wash times, apply Top-Cast EX 200 once the Top-Cast is completely dry. Refer to the Top-Cast EX 200 current technical data sheet for more information.

**SEALING**

Multiple options are available for sealing exposed aggregate concrete.

One option includes the Top-Cast PR 300 which can be used any time after wash-off for penetrating protection. Top-Cast PR 300 will make the exposed aggregate concrete more water, stain, and abrasion resistant for easier maintenance and longer life. Exposed aggregate treated with Top-Cast PR 300 will not accept future applications of Top-Cast CS 400 or Top-Cast HG 500.

Top-Cast CS 400 can be used as a cure and seal that meets ASTM C309. Top-Cast CS 400 is applied after wash off, once the surface water is off the slab, and will provide an attractive semi-gloss finish.

For enhanced appearance, Top-Cast HG 500 can be applied 24-48 hours after placement of the concrete. Top-Cast HG 500 is a high-gloss acrylic sealer that resists blushing and has excellent weather-ability. For added protection and appearance, Top-Cast HG 500 may be applied over Top-Cast CS 400.

**Removal:**

Actual removal time for the desired appearance varies based upon concrete mix design, finishing technique, weather conditions and grade of Top-Cast used. The retarded cement matrix can be removed as early as 4 hours and up to 16 hours depending on conditions. The Top-Cast EX 200 can be used to extend wash off times when applied per the technical data sheet.

The use of a garden hose with a stiff broom can be used when removing Top-Cast sooner or using high-pressure water or a combination of water and scrubbing if left on longer. With faster setting concrete mix designs or application in hot weather, it may be necessary to remove the retarded matrix the same day for best results, particularly, when using the lightest etches.

A mock up panel placed near the actual concrete placement using the same concrete mix and technique can be used as a test panel for aid in determining the proper time to remove the retarded matrix.

Do not wait too long to remove Top-Cast. Top-Cast will slow the set of the concrete surface but will not stop it, if the concrete cures to hard the Top cast will be harder to remove.

**CLEAN UP**

Clean tools and equipment with clean water after use.

## TECHNICAL DATA SHEET

**LIMITATIONS**
**FOR PROFESSIONAL USE ONLY**

In hot weather it may also be necessary to remove the retarded matrix the same day for best results. Removal of the Top-Cast and retarded concrete matrix too early or too late will effect the appearance of the concrete.  
 Not designed for in-form use.  
 Protect surrounding surfaces from overspray during application and removal.

**PRECAUTIONS**
**READ SDS PRIOR TO USING PRODUCT**

- Use with adequate ventilation
- Wear protective clothing, gloves and eye protection (goggles, safety glasses and/or face shield)
- Keep out of the reach of children
- Do not take internally
- In case of ingestion, seek medical help immediately
- May cause skin irritation upon contact, especially prolonged or repeated. If skin contact occurs, wash immediately with soap and water and seek medical help as needed.
- If eye contact occurs, flush immediately with clean water and seek medical help as needed
- Dispose of waste material in accordance with federal, state and local requirements

**MANUFACTURER**

Dayton Superior Corporation  
 1125 Byers Road  
 Miamisburg, OH 45342  
 Customer Service: 888-977-9600  
 Technical Services: 877-266-7732  
 Website: [www.daytonsuperior.com](http://www.daytonsuperior.com)

**WARRANTY**

Dayton Superior Corporation ("Dayton") warrants for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Dayton, the product is free of manufacturing defects and conforms to Dayton's product properties in force on the date of acceptance by Dayton of the order. Dayton shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Dayton's instructions, especially surface preparation and installation, in force on the date of acceptance by Dayton of the order. The purchaser must examine the product when received and promptly notify Dayton in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Dayton, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only a Dayton officer is authorized to modify this warranty. The information in this data sheet supersedes all other sales information received by the customer during the sales process. **THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.**

Dayton shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, its obligations under any contract for sale of product, even if Dayton could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this contract, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.