

Surface Retarders

Product Description

Surface Retarders offer unmatched reliability and control for exposed aggregate finishes. The beauty and durability of this high quality finish can be seen in landmarks worldwide: the grounds of the U.S. Capitol; Yamoussoukro Basilica, Africa; and the European Parliament, to name a few.

GCP Produits de Construction S.A.S., a French division of GCP, brings over 40 years of experience in the surface retarder market, creating a range of products with an unprecedented level of control for depth-of-etch. This allows a uniquely controllable selection of surface finishes to add beauty to architectural concrete.

GCP has been serving the needs of the international construction industry with products that improve strength and durability. The GCP combination of innovative products, sophisticated research and development and technical service and support at the job site deliver added value that is unmatched in the industry.

Product Uses

Surface Retarders provide a comprehensive range of effect, from a light sand finish up to full exposure of 1 1/4 in. (32 mm) aggregate. The products are designed for use on cast-in-place walls, residential driveways, pool decks, golf course cart paths, sidewalks or large plaza decks and precast concrete. Review the Surface Retarder Guide below to determine the product which best matches your job requirements.

Product Advantages

- Comprehensive range of etch depth
- Excellent depth-of-etch control
- Improves flexibility of when you can wash
- Products available both for in-form and surface applications
- VOC compliant
- Easy application
- Excellent coverage rates
- Short drying times

Product Function

Each product creates a unique degree of reaction to produce the effect on the surface mortar. The retarding chemicals diffuse into the paste, due to the normal porosity of cement in the first hours of curing, and slow down the cement hydration reaction. During the next 16–72 hours of curing, the bulk concrete hardens except where the matrix cement has been retarded. The retarded surface cement is then removed by water or sandblasting, revealing the aggregate in the concrete mix.



Surface Retarder Guide

Top Surface Retarders

PRODUCT	NO. OF ETCHES	TYPE OF BASE	PRODUCT CHARACTERISTICS	RESISTANCE TO ABRASION (CONCRETE PLACING TIME)	HEAT RESIST.	APPLICATION METHODS	APPROXIMATE COVERAGE AND DRYING TIME	RELEASE REQUIRED
TOP-CAST®	11	Water	A film-forming top surface retarder which prevents accelerated evaporation. Saves time by eliminating the need for covering the surface. Designed for large paving and hollow core applications.	NA	Up to 140°F (60°C)	Low pressure, garden-type sprayer	200–300 ft ² / gal (4.9–7.4 m ² /L)	NA

In-Form Retarders

PRODUCT	NO. OF ETCHES	TYPE OF BASE	PRODUCT CHARACTERISTICS	RESISTANCE TO ABRASION (CONCRETE PLACING TIME)	HEAT RESIST.	APPLICATION METHODS	APPROXIMATE COVERAGE AND DRYING TIME	RELEASE REQUIRED
Pieri® EURO-TARD	11	Solvent*	An in-form retarder, unique in not requiring an undercoating release. The depth-of-etch is highly uniform. The retarded matrix is designed not to transfer to the concrete and is easily brushed from the form.	Good 30–40 minutes	Up to 150°F (65°C)	Brush or roller: 2 light coats Spray: 1 full-bodied coat	350–400 ft ² / gal (8.6–9.8 m ² /L) 10 minutes	NA
Pieri® DURO-TARD	9	Solvent*	An in-form retarder, unmatched for abrasion resistance. Recommended for vertical surfaces up to 10 ft, for spun poles and for multi-batch panels, where extended placing times are required.	Excellent 45–60 minutes	Up to 150°F (65°C)	Brush or roller: 2 light coats Spray: 1 full-bodied coat	250–300 ft ² / gal (6.1–7.4 m ² /L) 10 minutes	WMR

PRODUCT	NO. OF ETCHES	TYPE OF BASE	PRODUCT CHARACTERISTICS	RESISTANCE TO ABRASION (CONCRETE PLACING TIME)	HEAT RESIST.	APPLICATION METHODS	APPROXIMATE COVERAGE AND DRYING TIME	RELEASE REQUIRED
Pieri® VMR	NA	Alcohol	An undercoat for use with DURO-TARD. Ensures transfer of retarder to the cast concrete. Dries fast. Reduces or eliminates form clean-up.	NA	NA	Brush or roller	400-500 ft ² / gal (9.8-12.3 m ² /L) 20 minutes	NA

*Complies with U.S. E.P.A. Volatile Organic Compound Emission Standards for Architectural Coatings

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