

## EXP 2089

In-form retarder

### DESCRIPTION

**In-form surface retarders (IFSR) for simulating acid-etch or sandblast finishes, and creating exposed aggregate finishes.**

EXP 2082A - EXP 2094 is a unique series of in-form surface retarders used for obtaining architectural finishes on precast concrete. The etch-depths provide a full-range of finishes from a very-light, acid-etch (or sand blast) finish to traditional, deep exposed aggregate finish. Application rates vary by etch-depth from 350 to 500 ft<sup>2</sup>/gal (8.6 - 12.3 m<sup>2</sup>/L)

The EXP 2082A - EXP 2094 series of products are designed for simulating a sandblast appearance down to a deep exposed aggregate finish. The table in the Technical Data Sheet shows the etch-depth range options and coverage rates. The application rate of 350 - 500 ft<sup>2</sup> per gallon makes this an economical option for achieving the look you need.

### ADVANTAGES

- One light coat, fast drying
- May be spray applied
- Excellent etch consistency
- High coverage rates = low cost per ft<sup>2</sup>
- Easy formwork cleanup without solvents
- Can be cast against up to 24 hours after application of retarder
- Can be demolded up to 72 hours after casting

### FIELDS OF APPLICATION

- For use in grey or white concrete mixes (Type I/II, III)
- For use on sealed wood, fiberglass, Polyurathane or steel forms or molds

### Method of Use

#### Dosage

- w/c ratio: 0.38 – 0.45
- Cement content: 600 – 800 lbs/yd<sup>3</sup>
- Sand/Aggregate ratio: 0.4 – 0.5
- Application and Casting temperatures: 50 – 95 °F (10 – 35 °C)
- Concrete Curing temperatures: 40 – 158 °F (4 - 70 °C)

#### Additional Usage Recommendations

- Spray or roll apply in light pattern left to right and then top to bottom of the= formwork . There should be no visible paint pattern.
- Molds made of sealed wood, fiberglass, polyurathane or steel must be clean and free from imperfections and loose debris before application.
- All EXP in-form surface retarder (or IFSR) products must be mixed well prior to each use with a mechanical paint stirrer to blend any precipitated material on bottom of can. Mix for a minimum of three-minutes ensuring the product looks smooth and uniform.
  - If spraying, you may pour EXP IFSRs through paint strainer into container to reduce the chance of clogging the spray tip. It is recommended to use an airless paint sprayer with a stain tip.
  - If rolling, use no more than a ¼" nap roller. Pre-saturate the roller with EXP 2082A before applying EXP IFSFs to the form.
- Apply one light coat uniformly, without any gaps or excess. If excess material forms, wipe off with a clean rag and then re-apply once the first coat is dry. This prevents drying inconsistencies.
- Average drying time is about 30 minutes depending on temperature and humidity. It is important that EXP IFSRs surfaces are completely

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dry before contuning with form setup or casting concrete onto it.

- Concrete should be a very fluid mix with high-slump, flowable or be Self-Consolidating Concrete (SCC).
- Minimize vibration (if needed) after 20 minutes of the concrete being in contact with tje EXP IFSRs, as not to disturb to surface. This can move the retarder and cause a non-uniform finish. Pouring a monolithic concrete panel is preferred also to reduce disruption to the activated retarder.
- Allow the concrete to harden until approximately 3500 psi before removing from formwork. Use a pressure washer (2500 – 3500 psi) to remove the retardered surface within eight hours of removal from the form (as long as the demolded panel stays dry).
  - If the panel is exposed to rain or high humidity start removing the immediately.
- Begin by wetting/soaking the entire retardered concrete surface with water and let stand for about one minute. Continue to pressure wash the concrete surface, side-to-side, overlapping each pass. Keep the fan spray perpendicular to the concrete surface as to maintain a uniform pressure to avoid creating wand marks.
- Make sure to thoroughly rinse surface once competed to remove any overspray from other pieces. Allow to dry completely before handling, then you may touch up as needed.

Complimentary Products

- Use of Fly ash or other supplementary cementitious materials are not recommended.

Process Component

- Follow precast concrete best practices in accordance with [Precast/Prestressed Concrete Instutue \(PCI\) MNL 117](#).
- It is recommended to use shoe protection if walking in the form during set-up to avoid scratching the retardder, or transferring grease, oils, dust or anything else that can create a barrier between the concrete and the retarder.

CHARACTERISTICS

Product Nature	Liquid
Color	Pink
Shelf life	12 months

PRECAUTIONS

- Solvent based liquid.
- Density at 68°F (20°C): See Table 1.
- Viscosity at 68°F (20°C): See Table 1.
- Flash point: 109°F (43 °C) (SETAFLASH method).
- Freezing point: approx. < 5°F (-15°C).

PACKAGING

- 20 L bucket

SAFETY

- Flammable product. Keep away from sparks, open flames.
  - Use respirator for spray applications.
  - This product must be kept in its original packaging.
  - Shipping Classification: Paint, 3, UN1263, Flammable liquid, P.G II.
- Prior to any use, please read carefully the Safety Data Sheet.

ADDITIONAL INFORMATION

Table 1 – Specific Etch-Depth Coverages Rates and Specifications

Estimated etch-depth*	EXP	EXP Approx. Color	Coverage Rate (s.f./gal)	grams/sq. ft.	Finish equivalent			Density	Viscosity
					Acid etch	Sand Blast	Exposed Aggregate		
Surface (Skin) only	2082A	Mint Green	500	7.2	Acid etch	Sand Blast	Exposed Aggregate		
Matrix exposure (1/32 to 1/16)	2084	Beige	400	9.6	Light	Light	--		
up to about 3/32"	2085	Blue	400	9.6	Light-med.	Light	--		
Up to about 1/8"	2086	Brown	350	11.3	Med.	Light	--		
Up to about 3/16"	2087	Green	350	11.3	Deep	Med.	Light		
Up to about 1/4"	2088	Yellow	350	11.3	Very deep	Med.	Med.		
Up to about 5/16"	2089	Lt. purple	350	11.3	--	Med.	Med.		
Up to about 3/8"	2090	Lt blue	350	11.3	--	Med.	Med.		
Up to about 1/2"	2091	Lt. yellow	350	11.3	--	--	Med.		
Up to about 5/8"	2092	White	350	11.3	--	--	Deep		
5/8" to about 1"	2093	Orange	350	11.3	--	--	Deep		
1" to 1.5"	2094	DK Purple	350	11.3	--	--	Deep		

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