

Surface Retarder Reference Guide

**MasterFinish[®] Retarders for Creating
Beautiful Exposed Aggregate Concrete**



Surface Retarder Reference Guide for Exposed Aggregate Concrete

Retarder Transfer Agent
(use under MasterFinish HC
and MasterFinish HV only)

Retarder	MasterFinish HC Light Etches	MasterFinish HC Regular Etches	MasterFinish HV	MasterFinish UC	MasterFinish EA	MasterFinish XR	MasterFinish QD 200
Key Feature	Light Etch	Heat Resistant	Vertical Pours	One Coat	Top Surface	Heavy Bodied, Pigmented	General purpose, particularly for Vertical Pours, Abrasion or Heat
Base	Solvent	Solvent	Solvent	Solvent	Water	Water	Solvent
Description	Light etch form retarder. Can be used to reduce or eliminate costly sandblasting.	General purpose form retarder, also recommended for excessive heat or extended time in form applications.	Specialized high abrasion resistant form retarder recommended for vertical pours, extended pour time, or other difficult casting conditions.	Specialized, one-coat, general purpose form retarder with excellent abrasion resistance. No retarder transfer agent required. Saves time.	Top surface retarder for new sidewalks, driveways, construction joints, and other face-up exposed aggregate concrete applications.	Heavy bodied, pigmented, water-based retarder. Recommended for use on top surfaces, or as a form retarder on flat panels, ICF formliners or construction joints (9).	Helps retarder film transfer from the form to the concrete during the stripping process. Specially formulated for vertical pours, extended pour time, or extreme pouring conditions.
Etch Color Code (1) & (2)	Blue, Gold	Lilac, Pink, Tan, Brown	Gold, Lilac, Pink, Grey	Lilac, Pink	Regular, Deep (7)	Lilac, Pink	N/A
Concrete Placement Time	20 to 30 min.	10 to 15 min.	25 to 35 min.	20 to 30 min.	N/A	5 to 10 min.	N/A
Recommended Maximum Concrete Temperature (3)	110 °F 120 °F (Gold)	160 °F	110 °F	100 °F	110 °F	110 °F	160 °F
Coverage – ft²/gallon	200	200	200	300	150	200	250
Method of Application (4)	S,R	S,B,R	S,B,R	S, B, R	S (8)	S,B,R (top surface S only)	S,B,R
Retarder Transfer Agent Needed	MasterFinish QD 200	MasterFinish QD 200	MasterFinish QD 200	None	None	None	N/A
Concrete Temp. – Recommended Time (5)	70 °F - 72 h 100 °F - 24 h	70 °F - 7 days 110 °F - 72 h 160 °F - 8 h	70 °F - 48 h 90 °F - 20 h 110 °F - 16 h	70 °F - 48 h 90 °F - 36 h 110 °F - 24 h	70 °F - 36 h 90 °F - 24 h 110 °F - 16 h	70 °F - 48 h 90 °F - 36 h 110 °F - 20 h	N/A
Drying Time (6)	15 min.	15 min.	15 min.	10 - 20 min.	Does not apply	30 min.	10 min.

Aggregate size	Etch
Sandblast/Acid Etch	Blue
1/8 in. - 1/4 in.	Gold
1/4 in. - 3/8 in.	Lilac
3/8 in. - 1/2 in.	Pink
1/2 in. - 5/8 in.	Tan
5/8 in. - 3/4 in.	Brown
3/4 in. & up	Grey

Etch on white concrete will generally be lighter than grey concrete

- (2) For custom blending of retarder, consult a Master Builders Solutions representative.
- (3) Recommendation is based on results with 3:1:1 concrete made with US white cement, Type I. Grey Type I withstands 10 °F higher temperature.
- (4) S - Spray - Conventional air spray or airless equipment.
B - Brush
R - Short Nap Roller
- (5) This is the maximum recommended time at the internal concrete temperature mentioned, which should provide full depth of exposure according to the etch (color) selected.
- (6) Time required for complete drying before casting. This is based on 8 mil application (200 ft²/gallon) for retarders at 75 °F and 50% humidity on a flat surface. High humidity, cold temperatures and poor ventilation will increase drying time.

- (7) MasterFinish EA Regular is generally used on 1/2 in. or smaller aggregate. MasterFinish EA Deep on 1/2 in. or larger aggregate.
- (8) MasterFinish EA Regular and MasterFinish EA Deep can be sprayed with a pump type garden sprayer.
- (9) MasterFinish XR can be used to keep brick or tile clean from grout leakage on brick or tile faced precast panels (Consult Master Builders Solutions representative).

Information contained herein is based on scientific methods used under laboratory conditions. Field conditions differ and give variable results accordingly. For best results, samples should be made using the same mixture proportions, panel thickness, etc. The Master Builders Solutions technical staff should be consulted. Refer to the data sheets for additional information. No warranty of results is implied.

About Master Builders Solutions

Master Builders Solutions is a leading global manufacturer of concrete admixtures, as well as other sustainable solutions for the construction industry, focussed on delivering its vision: **Inspiring people to build better.** Master Builders Solutions provides value-added technology and market-leading R&D capabilities to improve the performance of

construction materials and to enable the reduction of CO2 emissions in the production of concrete. Founded in 1909, Master Builders Solutions has ca. 1600 employees operating 35 production sites globally, supporting their customers in mastering their building challenges of today – for a decarbonised future.

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