

MasterSet[®] DELVO ESC Admixture Extended Set Control Admixture

Application: Stabilizing concrete with MasterSet DELVO ESC admixture during truck breakdowns and job delays
MasterSet DELVO ESC (Extended Set Control) admixture is a dry formulation of MasterSet DELVO Stabilizer admixture where one MasterSet DELVO ESC admixture puck is equal to 16 fluid ounces (470 mL) of MasterSet DELVO Stabilizer admixture. MasterSet DELVO ESC admixture has a scored side for flexibility in dosage adjustments, and transporting this product is easy using a convenient carrying bag or a plastic dispenser that can be installed in a ready-mix truck cab.

Procedure: There are two procedures (A&B) that can be used to stabilize concrete with MasterSet DELVO ESC admixture (see reverse side for dosage guidelines).

A

Dosage Procedure A:

Dissolve MasterSet DELVO ESC Pucks in Water

1. Determine the dosage (# of pucks needed)
2. Dissolve MasterSet DELVO ESC pucks in 1 to 2 gallons (4 to 8 liters) of water (*requires agitation and only takes a few minutes*)
3. Back concrete to rear of truck and treat with dissolved pucks
4. Mix at high speed for 5 minutes

B

Dosage Procedure B:

Don't dissolve MasterSet DELVO ESC pucks in Water (concrete must be at 4 in. (100 mm) slump or higher)

1. Determine the dosage (# of pucks needed)
2. Back the concrete to rear of truck
3. Break the MasterSet DELVO ESC admixture pucks in half
4. Place the pucks onto the concrete and spray with water for 15 to 30 seconds
5. Mix the concrete at high speed for 5 to 7 minutes

Dosage Guidelines: These are the guidelines to follow when using MasterSet DELVO ESC Admixture for job delays and truck breakdowns (Note: In the case of a breakdown, the truck drum must still be able to turn). These are only guidelines, and variations in materials may cause a change in dosage. **Therefore, it is recommended that trial batches be made with local materials to determine the actual dosages to achieve the required set time.**

MasterSet DELVO ESC Admixture Pucks Dosage Chart

Cement Factor Range: 300 –575 lb/yd³ (180 – 345 kg/m³)

Admixture, Type and Dosage	Concrete Age (Hours from initial batch time)											
	> 1 – 1.5			> 1.5 – 2			> 2 – 2.5			> 2.5 – 3		
	Number of MasterSet DELVO ESC admixture pucks needed, per yd ³ (0.8 m ³)											
Concrete Temperature, 50 – 59 °F (10 – 15 °C)												
None*	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5	0.5	1	1.5
Accel**, 1%	1	2	2.5	2	3	4	2.5	3.5	4	3.5	5	6
Accel**, 2%	2	3	4	3	4	5	3.5	4.5	6	5	6	8
Concrete Temperature, 60 – 69 °F (16 – 20 °C)												
None*	2.5	2.5	2.5	1.5	2.5	3.5	2.5	3.5	4	3.5	4.5	6
Accel**, 1%	1	3.5	3.5	3	4	5	4	5	6	5	6	7
Accel**, 2%	0.5	5	5	4	5	6	5	6	7.5	6.5	8	9.5
Concrete Temperature, 70 – 79 °F (21 – 26 °C)												
None*	2	3	3.5	2.5	3.5	4.5	3.5	4.5	5.5	5	6	7
Concrete Temperature, 80 – 89 °F (27 – 31 °C)												
None*	2.5	3.5	4	3.5	4.5	5	4.5	5.5	7	6	7	8.5
Ret***, 2 fl oz/cwt (130 mL/100 kg)	1	2.5	3	2.5	3	3.5	3.5	4.5	5.5	4.5	5.5	7
Ret***, 4 fl oz/cwt (260 mL/100 kg)	0.5	1.5	2	1.5	2	3	2.5	3.5	4	3.5	4.5	6
Concrete Temperature, 90 – 99 °F (32 – 37 °C)												
None*	4	5	6	5	6.5	7.5	6.5	8	9	***	***	***
Ret***, 2 fl oz/cwt (130 mL/100 kg)	3	4	5	3.5	5	6.5	5	6.5	8	***	***	***
Ret***, 4 fl oz/cwt (260 mL/100 kg)	2	2.5	3.5	2.5	4	5	3.5	4.5	6	4.5	6	8
Concrete Temperature, 100 – 106 °F (38 – 43 °C)												
None*	5	6	7.5	6	8	9	***	***	***	***	***	***
Ret***, 2 fl oz/cwt (130 mL/100 kg)	3.5	4.5	5.5	4.5	6	7.5	6	8	9.5	***	***	***
Ret***, 4 fl oz/cwt (260 mL/100 kg)	2.5	3	4	3.5	4.5	5.5	4.5	6	7.5	***	***	***

* No accelerating / retarding admixture

** MasterSet Accelerator Series

*** MasterSet Retarder Series

****Stabilization is not recommended at this stage

Up to 0.5 h additional retardation
> 0.5 – 1.5 h additional retardation
> 1.5 – 2.5 h additional retardation

Master Builders Solutions Admixtures US, LLC
 23700 Chagrin Boulevard
 Beachwood, OH 44122 USA
 (800)628-9990

Master Builders Solutions Canada, Inc
 1800 Clark Boulevard
 Brampton, Ontario L6T 4M7 CANADA
 (289)360-1300

master-builders-solutions.com/en-us
admixtures@masterbuilders.com

® registered trademark of Master Builders Solutions in many countries of the world
 © 2023 Master Builders Solutions rev 10/23 Lit #: AD3000189