

MasterCell[®] 25

Admixture for Controlled Low Strength Materials (CLSM)

Description

MasterCell 25 admixture is a ready-to-use, self-contained product for use in various flowable fill applications where reduced densities (unit weights) and air contents of up to 35% are desired.

Applications

Recommended for use in:

- Backfill (flowable fill) – sewer trenches, utility trenches, bridge abutments, retaining walls, conduit trenches, etc.
- Structural Fill – foundation sub bases, floor slab bases, pipe bedding

Features

MasterCell 25 admixture produced CLSM can be used in any application in lieu of compacted soil. MasterCell 25 admixture is used in flowable fill mixes to lower the density (unit weight), eliminate settlement, and to control strength development. It produces stable air contents of 15-35% and reduces water content by as much as 50%.

Benefits

- Increased yield
- Optimum workability – can be produced in either fluid or plastic consistency
- Increased pumpability
- Little or no bleeding
- No segregation
- Reduced shrinkage
- Reduced settlement
- Control of strength development
- Cost-effective compared to in-place cost of compacted soil

Performance Characteristics

Technical Data*

	Mix 1 1 yd ³ (0.8 m ³) Load	Mix 2 4 yd ³ (3 m ³) Load
Cement, lb/yd ³ (kg/m ³)	95 (56)	100 (60)
Sand, lb/yd ³ (kg/m ³)	2,260 (1,340)	2,220 (1,320)
Water, lb/yd ³ (kg/m ³)	171 (100)	177 (105)
MasterSet AC 534 admixture, fl oz/cwt (mL/100 kg)	16 (1,040)	–
MasterCell 25 admixture	1 Small Bag	1 Large Bag
Air Content	33%	35%
Compressive Strength, psi (MPa)		
@ 28 Days	110 (0.8)	40 (0.3)
@ 58 Days	160 (1.1)	60 (0.4)

*Based on field trials using specific set of materials. Results will vary depending on local materials and ambient conditions. Trial mixtures are strongly recommended to determine performance characteristics with local materials.

Note: Setting times may be extended when high air content producing materials are used. If an earlier load bearing (set) time is desired, an accelerating admixture may be used in the flowable fill mixture.

Guidelines for Use

MasterCell 25 admixture is a powdered material packaged in a ready-to-use disintegrative bag. MasterCell 25 admixture is formulated for use in producing flowable fill mixtures. It is not recommended for use in conventional concrete.

MasterCell 25 admixture performs best when added to mixes with an initial slump of 1-3 in. (25-75 mm). If necessary, the water content of the mix should be adjusted to obtain a maximum 3 in. (75 mm) initial slump. The MasterCell 25 admixture bag is simply tossed into the truck hopper and mixed with the previously batched materials for a minimum of 5 minutes at slow mixing speed. It is not necessary to wash down the hopper after adding MasterCell 25 admixture.

MasterCell 25 admixture may be added at the jobsite or at the ready-mixed concrete plant.

Storage and Handling

Storage Temperature: MasterCell 25 admixture should be stored in a dry area at temperatures below 130 °F (54 °C).

Handling: The use of gloves and goggles are recommended when handling MasterCell 25 admixture.

Shelf Life: MasterCell 25 admixture has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use and dosage recommendations if the shelf life of MasterCell 25 admixture has been exceeded.

Packaging

MasterCell 25 admixture is available in two sizes. The small bag will treat 1 yd³ (0.8 m³) and the large bag will treat 4 yd³ (3 m³). MasterCell 25 admixture is supplied by the case:

- 1 yd³ (0.8 m³) bag – 40 bags per case
- 4 yd³ (3 m³) bag – 20 bags per case

Related Documents

Safety Data Sheets: MasterCell 25 admixture

Additional Information

For additional information on MasterCell 25 admixture, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

Limited Warranty Notice

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

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