

3	03 30 00	Cast-in-Place Concrete
4	03 40 00	Precast Concrete
	04 22 00	Concrete Unit Masonry

MasterPel[®] 235

Water-Repellent Admixture

Description

MasterPel 235 admixture is formulated for use in ready-mixed and precast concrete, as well as for other applications, such as concrete masonry. MasterPel 235 admixture imparts moisture penetration resistance in concrete and concrete products by making the pores and pore linings less prone to water ingress. As a result, water absorption and capillary “wicking” of moisture into the concrete is greatly reduced.

Applications

Recommended for use in

- Slabs-on-ground
- Foundation walls
- Exterior walls
- Swimming pools
- Columns
- Wall panels
- Architectural units and other precast products which will be exposed to moisture in service
- Concrete Masonry

Features

- Reduced rate of water absorption
- Reduced water vapor transmission
- Reduced efflorescence potential

Benefits

- Provides lasting protection from moisture damage
- Resists capillary uptake of moisture beneath floor slabs

Performance Characteristics

MasterPel 235 admixture has undergone extensive testing to examine its overall performance in concrete. These tests include the following:

- ASTM C 39/C 39M Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
- ASTM C 140/C 140M Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
- ASTM C 157/C 157M Standard Test Method for Length Change of Hardened Hydraulic-Cement, Mortar, and Concrete
- ASTM C 403/C 403M Standard Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance
- ASTM C 642 Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
- ASTM C 779/C 779M Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces
- ASTM C 952 Standard Test Method for Bond Strength of Mortar to Masonry Units
- Wiss, Janney, Elstner Method: Adsorption/Water Vapor Transmission

Note: The most critical of these test procedures in substantiating water repellency are: ASTM C 642 and the Wiss, Janney, Elstner method of determining absorption and water vapor transmission.

Guidelines for Use

Dosage: MasterPel 235 admixture is recommended within the dosage range of 2-10 fl oz/ cwt (130-650 mL/100 kg) of cement, depending on the mixture proportions, and level of water repellency desired. It is also recommended that the water-cementitious materials ratio be limited to a maximum of 0.50. Please consult your local sales representative to obtain dosage rate recommendations.

Product Notes

MasterPel 235 admixture will not compensate for flaws in building design, materials, mixture proportions or workmanship. It is recommended that a producer run trial batches with MasterPel 235 admixture and conduct the appropriate tests to determine optimum dosage for a given set of materials. Slight adjustments to the mixture proportions may be necessary to obtain maximum water-repellency. Master Builders Solutions is not responsible for inappropriate use of MasterPel 235 admixture. Your local sales representative can provide assistance if requested.

For concrete exposed to hydrostatic pressure, the volume of capillary pore space must also be reduced by lowering the water-cementitious materials ratio, and if necessary, by adding silica fume, and/or fly ash, to the concrete mixture. The use of a water-reducing admixture, such as MasterPozzolith®, MasterPolyHeed®, MasterRheobuild® or MasterGlenium® admixture in conjunction with MasterPel 235 admixture will be required.

MasterPel 235 admixture is not recommended for use in concrete that will be exposed to freezing and thawing cycles without adequate air entrainment.

Corrosivity – Non-Chloride, Non-Corrosive: This admixture will neither initiate nor promote corrosion of reinforcing steel in concrete. This admixture does not contain intentionally-added calcium chloride or other chloride-based ingredients.

Storage and Handling

Storage Temperature: MasterPel 235 admixture must be stored at temperatures above 40 °F (4 °C) and below 105 °F (42 °C). MasterPel 235 admixture should not be used after it freezes.

Shelf Life: MasterPel 235 admixture has a minimum shelf life of 6 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 MasterPel 235 admixture has been exceeded.

Packaging

MasterPel 235 admixture is supplied in 55 gal (208 L) drums, 275 gal (1041 L) totes and by bulk delivery.

Related Documents

Safety Data Sheets: MasterPel 235 admixture

Additional Information

For additional information on MasterPel 235 admixture or its use in developing concrete mixtures with special performance characteristics, 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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