

03 30 00	Cast-in-Place Concrete
03 33 00	Architectural Concrete
03 40 00	Precast Concrete

MasterColor[®] I4 CB

Carbon Black Liquid-Coloring Admixture

Description

MasterColor I4 CB is a ready-to-use carbon black liquid-coloring admixture used to produce concrete in varying shades from light gray to black.

Applications

Recommended for use in:

- Integrally colored architectural concrete
- Ready-mixed concrete

Features

- Carbon black liquid-coloring dispersion formulated for the automated CAM (Coloring Admixture Measuring) System from Master Builders Solutions
- High tinting strength

Benefits

- Cost-effective liquid black dispersion
- Enhanced color vibrancy
- Batch-to-batch color consistency
- Increased plant productivity and reduced labor
- Clean and simple
- Verifiable color batching results
- Faster dispersion into concrete
- Single source producer support for chemical, mineral and coloring admixtures

Limitations

Like all carbon black products for concrete, MasterColor I4 CB liquid-coloring admixture is subject to fading when exposed to weathering and repeated wetting and drying. MasterColor I4 CB coloring admixture is not recommended for use in air-entrained concrete. MasterColor[®] L Black liquid-coloring admixture should be utilized in air-entrained concrete and concrete exposed to cycles of wetting and drying. MasterColor I4 CB coloring admixture should not be intermixed with standard MasterColor[®] liquid-coloring admixtures.

Physical Properties

Density*	9.6 lb/gal (1.15 kg/L)
Viscosity*, Brookfield #4 @ 60 rpm	1500-2000 cP

* @ 72 °F (22 °C)



Guidelines for Use

Dosage: Color formulas for standard MasterColor colors and other regional colors are programmed into the Master Builders Solutions CAM System upon installation. They are weighed or metered and dispensed as a percentage of cementitious materials. Contact your local sales representative for dosage rates.

Mixing: With the automated Master Builders Solutions CAM System, MasterColor 14 CB liquid-coloring admixture is weighed or metered and dispensed prior to or while loading concrete. Product and rinse water are calculated by the CAM System and should be included in the total batch water. For best results add coloring dispersions prior to concrete. For post addition, mix a minimum of 4-5 minutes at mixing speed to ensure uniformity. For best results, truck or mixer should be clean and prewet with no standing water. A minimum batch size equal to 1/3 of the mixer capacity should be used as a guideline for efficient mixing. Keeping the addition order, mixing time, materials and water-cementitious materials ratio constant between multiple batches is critical to color consistency.

General: Variations in water content, cement type, color variations in cementitious materials or aggregates, finish texture, timing of operations, curing or forming methods, release agents or surface treatments may each produce distinct, though in many cases slight, variations in final color. All color matches are completed using a medium shade of portland cement.

Concrete Placement and Finishing: Final color and textures should be pre-approved with a cured jobsite mock-up. In accordance with proper construction practices, slabs-on-ground should be placed over properly compacted and prepared subgrade. Spade formed edges and consolidate and strike off surface as normal. Care should be taken to avoid over-vibration, over-working and over-finishing, or other practices that might cause excessive bleeding or significantly increase the surface mortar content.

Trowelling or broom-finishing decorative concrete should be performed in the same direction to maintain uniform appearance. Do not add additional water to the concrete either by retempering or by adding water to the surface during the finishing process.

Curing: Proper curing of decorative concrete is required to enhance the depth of color, provide a more uniformly colored concrete, and provide surface protection. Master Builders Solutions' MasterKure® CC 1315 water-based curing and sealing compound or a compatible curing and sealing compound is recommended.

Note: Until decorative concrete is fully cured, the color may appear darker than expected. Curing with burlap, plastic sheeting, water or other curing compounds may be detrimental to color uniformity and is not recommended. For more information on curing decorative concrete contact your local sales representative.

Maintenance: Regular cleaning of decorative concrete is recommended. In general, resealing may be desired periodically as the sealed surface wears. Maintenance applications will be accelerated in areas of heavy use or frequent or aggressive cleaning. Heavily soiled interior areas may be cleaned by wet mopping or scrubbing

with a stiff-bristle brush and properly diluted, high-quality commercial detergent. For large areas, automatic scrubbers may be more efficient and cost effective.

Clean-Up: MasterColor 14 CB liquid-coloring admixture is water-based and can be cleaned with soap and water.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterColor 14 CB liquid-coloring admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete. No calcium chloride or chloride-based ingredients are used in the manufacture of this product. Complete safety information can be found on the MasterColor 14 CB Safety Data Sheet.

Compatibility: MasterColor 14 CB liquid-coloring admixture is compatible with most other admixtures used in the production of quality concrete with the exception of air-entraining admixtures. Mineral admixtures may affect color and should be checked for potential adjustments. All other admixtures should be dispensed into the concrete separately. The use of calcium chloride accelerators is not recommended in concrete treated with MasterColor 14 CB liquid-coloring admixture. Final color and texture should be verified with a cured jobsite mock-up.

Storage and Handling

Storage Temperature: MasterColor 14 CB liquid-coloring admixture should be stored between 40 and 100 °F (4 and 38 °C). Always mix material prior to use. If MasterColor 14 CB coloring admixture freezes, contact your local sales representative.

Shelf Life: MasterColor 14 CB liquid-coloring admixture has a minimum shelf life of 12 months if stored properly.

Packaging

MasterColor 14 CB liquid-coloring admixture is available in 2,500 lb (1,134 kg) net returnable totes.

Related Documents

Safety Data Sheets: MasterColor 14 CB liquid-coloring admixture

Additional Information

For additional information on MasterColor 14 CB liquid-coloring admixture or its use as part of an admixture system, 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.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.