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



MasterColor[®]

Integral Coloring Admixtures

Description

MasterColor integral coloring admixtures are patented, engineered, high quality coloring products producing enhanced decorative concrete. MasterColor admixtures are ready-to-use integral products that come in four base colors, in both liquid and granular forms:

- Black
- Light Red
- Medium Red
- Yellow

The four base colors can be used to make a wide range of colors including but not limited to the colors depicted on the MasterColor Decorative Concrete Color Selector.

Applications

Recommended for use in:

- Integrally colored decorative concrete
- Imprinted concrete
- Ready-mixed concrete
- Manufactured concrete products
- Stone veneer products
- Precast concrete
- Pervious concrete
- Self-consolidating concrete

Features

- Integral coloring admixtures specifically formulated to work with the proprietary dispensing systems
- Compatible with Master Builders Solutions admixtures used in the production of durable decorative concrete
- Fast dispersion into concrete

Benefits

- Beautiful, long-lasting integrally colored concrete
- Enhanced finishing characteristics
- Color vibrancy
- Excellent color accuracy
- Batch-to-batch color consistency and verifiable color batching results
- Increased productivity and reduced labor
- Clean and simple batching
- Quality custom color services

MasterColor admixtures meet the requirements of ASTM C 979.



Guidelines for Use

General: Due to the graying effect of most cements, there are some custom colors that can only be produced using very light or white cements. 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 produce distinct, though in many cases slight, variations in final color. All standard color matches are completed using a medium shade of portland cement.

Dosage: MasterColor color formulas for standard and other regional colors are programmed into the specific dispensing systems upon installation.

MasterColor admixtures are water neutral at loading rates of 5% or less. For loading rates above 5%, laboratory/field evaluations of MasterColor admixtures are recommended to verify desired concrete performance.

Mixing: With the automated dispensing systems, MasterColor admixtures are weighed or metered and dispensed prior to loading concrete. Product and rinse water are calculated by the dispensing systems and should be included as total batch water. For best results add coloring admixtures prior to batching concrete. For post addition, mix a minimum of 4-5 minutes at normal mixing speed to assure uniformity.

For best results, truck or mixer should be clean and pre-wet 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 for color consistency.

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. MasterKure® CC 1315 water-based curing and sealing compound from Master Builders Solutions or a similar, 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 required periodically as the sealed surface wears over time. Maintenance applications will need to 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 liquid-coloring admixtures are water based and can be cleaned with soap and water.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterColor admixtures 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 these products. Complete safety information can be found on the MasterColor admixture Safety Data Sheets.

Compatibility: MasterColor admixtures are compatible with most admixtures used in the production of quality concrete. Supplementary cementitious materials may affect color and should be checked for potential adjustments. All admixtures should be dispensed into the concrete separately. The use of calcium chloride accelerators are not recommended in decorative concrete. Final color and texture should be verified with a cured jobsite mock-up.

Storage and Handling

Storage Temperature: MasterColor liquid-coloring admixtures should be stored between 40 and 100 °F (4 and 38 °C) with regular mixing or recirculation. To prevent pigment sedimentation, recirculate the material every 90 days or less. Always mix material well prior to use. If MasterColor admixtures freeze, contact your local sales representative.

Granular form of MasterColor admixtures do not need recirculation. They should be stored in unopened containers in clean, dry conditions.

Shelf Life: MasterColor admixtures have a minimum shelf life of 12 months if properly stored.

Packaging

MasterColor liquid-coloring admixtures are available in 3,350 lb (1,520 kg) net returnable totes.

MasterColor granular products are available in super sacks of various sizes, based on the product volume.

Related Documents

Safety Data Sheets: MasterColor admixture

- Black
- Light Red
- Medium Red
- Yellow

Additional Information

For additional information on MasterColor admixtures, 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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