

# MasterKure<sup>®</sup> ER 50

## Evaporation Reducer

### Description

MasterKure ER 50 evaporation reducer reduces surface moisture evaporation from freshly placed concrete, especially in rapid drying conditions, such as high concrete surface or ambient temperatures, low humidity, high winds, direct sunlight, or work in heated interiors during cold weather.

### Applications

- Concrete surfaces where the evaporation rate exceeds the bleed rate
- Air-entrained and non-air-entrained concrete
- Silica-fume concrete
- Concrete containing fly ash

### Yield

One gallon (3.8 L) of MasterKure ER 50 mixed with nine gallons (34.1 L) of water yields 10 gallons (37.9 L) of sprayable solution. 10 gallons of MasterKure ER 50 solution (1 to 9) should cover 2,000–4,000 ft<sup>2</sup> (186–372 m<sup>2</sup>) of fresh concrete. If more than one application is required, e.g., in adverse drying conditions, additional material will be required.

### Product Highlights

- Does not affect concrete strength (early and ultimate), abrasion resistance, and durability
- Reduces or eliminates crusting, stickiness, and underlying sponginess resulting in a consistent surface
- Allows reduced slump and water content in concrete to facilitate proper hydration of high-strength mixtures
- Reduces surface moisture evaporation approximately 80% in wind and approximately 40% in sunlight to reduce plastic shrinkage cracking and wind crusting
- Prolongs surface plasticity for longer working time in hot, dry, or windy conditions

### Substrates

- Interior or exterior
- Horizontal and vertical surfaces

### Industries/Sectors

- Commercial
- Residential
- Infrastructure
- Institutional
- Industrial

## How To Apply Application

1. Agitate MasterKure ER 50 before mixing with water. Depending on the application, mix at a ratio of up to 1 part MasterKure ER 50 concentrate to 9 parts water. Re-agitate mixed materials before applying.
2. Apply with a constant-pressure or industrial sprayer.
3. MasterKure ER 50 forms a monomolecular film when sprayed onto the concrete surface immediately after screeding or between finishing operations (as needed). The protective shield of MasterKure ER 50 usually lasts as long as the concrete remains plastic, despite succeeding floating operations. When applying surface hardeners using the delayed application method, use MasterKure ER 50 after screeding. When applying surface hardeners using the early application method, use MasterKure ER 50 only after the specified quantity of dry shake has been incorporated into the concrete by floating and after the first floating operation, if necessary.
4. Treated surfaces are easily distinguished from untreated surfaces because of the greenish-yellow color of the film in the presence of moisture and light. The fluorescent tint of the film disappears completely upon drying. The residue remaining on the surface of hardened concrete does not impair bonding or alter color.

## For Best Performance

- Do not apply MasterKure ER 50 as a final finishing aid or work it into the surface of cast-in-place concrete or cementitious repair applications.
- MasterKure ER 50 evaporation reducer is not a curing agent. Concrete treated with this product must still be cured.
- Master Builders Solutions is not responsible for compatibility or results when MasterKure ER 50 evaporation reducer is used with other manufacturers' products.
- MasterKure ER 50 reduces evaporation only while concrete is plastic. It is not a substitute for early curing of hardened concrete, nor does it alter the effectiveness of membrane curing compounds.
- Protect MasterKure ER 50 from freezing. Extreme cold may cause segregation, from which the product cannot be reconstituted.
- Do not allow any spills or residue of MasterKure ER 50 concentrate to dry on the surface of hardened concrete. Wipe up immediately, then rinse the surface with water. If the concentrate residue dries on hardened concrete, a reddish-brown stain may appear.
- For a detailed technical discussion about the action of monomolecular films typified by MasterKure ER 50, refer to the Journal of the American Concrete Institute, Volume 62, pp. 977–985.
- MasterKure ER 50 product may be used in precast/prestressed concrete applications, such as drainage structures, double-tee beams, bridge girders and concrete piles, to prevent/minimize tearing and improve surface finish.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; visit [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

## Storage and Handling

**Storage:** Store in unopened containers in a clean, dry area between 40 and 90° F (4 and 32° C). Keep from

**Shelf Life:** 1 year when properly stored

**Voc Content:** 10 g/L less water and exempt solvents

## Packaging

- 1 gallon (3.8 L) cans
- 5 gallon (18.9 L) pails
- 55 gallon (208 L) drums

### 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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