

Description

MasterLIFE SRA 20 shrinkage-reducing admixture was developed specifically to reduce drying shrinkage of concrete and mortar, and the potential for subsequent cracking.

MasterLIFE SRA 20 admixture functions by reducing capillary tension of pore water, a primary cause of drying shrinkage.

Applications

Recommended for use in:

- Ready-mixed or precast concrete structures requiring shrinkage reduction and long term durability
- Wet mix shotcrete
- Mortars and grouts

MasterLIFE® SRA 20

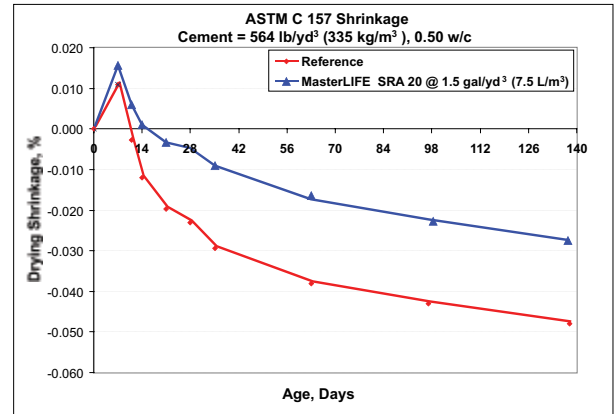
Shrinkage-Reducing Admixture

Features

- Significantly reduces drying shrinkage by as much as 80% at 28 days, and up to 50% at one year and beyond
- Reduces stresses induced from one-dimensional surface drying in concrete slabs and floors
- Reduces carbonation

Benefits

- Reduces drying shrinkage cracking and microcracking thereby improving aesthetics, watertightness and durability
- Reduction in drying shrinkage minimizes prestress loss
- Minimizes curling



Performance Characteristics

MasterLIFE SRA 20 admixture does not substantially affect slump. MasterLIFE SRA 20 admixture may increase bleed time and bleed ratio (10% higher). MasterLIFE SRA 20 admixture may also delay time of set by 1-2 hours depending upon dosage and temperature. Compressive strength loss is minimal with MasterLIFE SRA 20 admixture.

All projects requiring MasterLIFE SRA 20 admixture in concrete applications exposed to freezing and thawing environments must be pre-approved and require field trials prior to use. Therefore, contact your local sales representative when concrete treated with MasterLIFE SRA 20 admixture is being proposed for applications exposed to freezing and thawing environments.

Guidelines for Use

Dosage: Knowledge of the shrinkage characteristics of the concrete mixture proposed for use is required prior to the addition of MasterLIFE SRA 20 admixture. The dosage of MasterLIFE SRA 20 admixture will be dependent on the desired drying shrinkage and the reduction in drying shrinkage required. Therefore, it is strongly recommended that drying shrinkage testing be performed to determine the optimum dosage for each application and each set of materials.

The typical dosage range of MasterLIFE SRA 20 admixture is 0.5 to 1.5 gal/yd³ (2.5 to 7.5 L/m³). However, dosages outside of this range may be required depending on the level of shrinkage reduction needed.

Product Data: MasterLIFE SRA 20

Mixing: MasterLIFE SRA 20 admixture may be added to the concrete mixture during the initial batch sequence or at the jobsite.

The mix water content should be reduced to account for the quantity of MasterLIFE SRA 20 admixture used.

If the delayed addition method is used, mixing at high speed for 3-5 minutes after the addition of MasterLIFE SRA 20 admixture will result in mixture uniformity.

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: MasterLIFE SRA 20 admixture will neither initiate nor promote corrosion of reinforcing steel, prestressing steel or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of MasterLIFE SRA 20 admixture.

Compatibility: MasterLIFE SRA 20 admixture is compatible with all water-reducers, mid-range water-reducers, high-range water-reducers, set retarders, accelerators, silica fume, and corrosion inhibitors. For air-entrained concrete applications, Micro-Air® admixture is the recommended air-entrainer. The dosage of Micro-Air admixture should be established through truck trial evaluations. The trials should include a simulated haul time of at least 20 minutes to assess air content stability. MasterLIFE SRA 20 admixture should be added separately to the concrete mixture to ensure desired results.

Storage and Handling

Storage Temperature: MasterLIFE SRA 20 admixture is a potentially combustible material with a flash point of 198 °F (92 °C). This is substantially above the upper limit of 140 °F (60 °C) for classification as a flammable material, and below the limit of 200 °F (93 °C) where DOT requirements would classify this as a combustible material. Nonetheless, this product must be treated with care and protected from excessive heat, open flame or sparks. For more information refer to the MSDS.

MasterLIFE SRA 20 admixture should be stored at ambient temperatures above 35 °F (2 °C), and precautions should be taken to protect the admixture from freezing. If MasterLIFE SRA 20 admixture freezes, thaw and reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

Shelf Life: MasterLIFE SRA 20 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 MasterLIFE SRA 20 admixture has been exceeded.

Packaging

MasterLIFE SRA 20 admixture is available in 55 gal (208 L) drums and 268 gal (1014 L) totes.

Related Documents

Material Safety Data Sheets: MasterLIFE SRA 20 admixture.

Additional Information

For additional information on MasterLIFE SRA 20 admixture or its use in developing concrete mixtures with special performance characteristics contact your local sales representative.

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