

03 30 00	Cast-in-Place Concrete
03 40 00	Precast Concrete
03 70 00	Mass Concrete

# MasterLife<sup>®</sup> SRA 035

## Shrinkage-Reducing Admixture

### Description

MasterLife SRA 035 shrinkage-reducing admixture was developed specifically to reduce drying shrinkage of concrete and mortar, and the potential for subsequent cracking. MasterLife SRA 035 admixture functions by reducing capillary tension of pore water, a primary cause of drying shrinkage. MasterLife SRA 035 admixture will meet ASTM C 494/C 494M requirements for Type S, Specific Performance, admixtures.

### Applications

Recommended for use in:

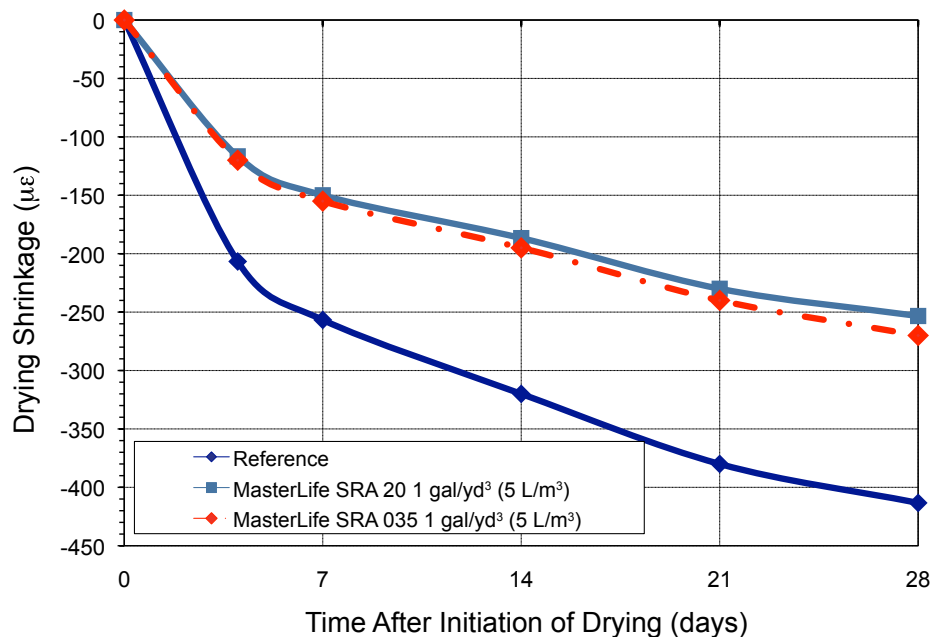
- Ready-mixed or precast concrete structures requiring shrinkage reduction and long-term durability
- Wet mix shotcrete

### Features

- Reduces the capillary tension of pore water in cementitious mixtures
- Provides moderate to significant reductions in the drying shrinkage of cementitious mixtures
- Reduces stresses induced from one-dimensional surface drying in concrete slabs, walls and other elements

### Benefits

- Reduces microcracking and drying shrinkage cracking in concrete, mortar and paste
- Minimizes curling in concrete slabs
- Improves aesthetics, watertightness and durability in concrete elements and structures
- Minimizes prestress loss in prestressed concrete applications



## Performance Characteristics

MasterLife SRA 035 admixture does not substantially affect slump. MasterLife SRA 035 admixture may slightly increase bleed time and bleed ratio. MasterLife SRA 035 admixture may also delay time of set by 1-2 hours depending upon dosage and temperature. Compressive strength loss is minimal with MasterLife SRA 035 admixture. For air-entrained concrete applications, truck trial evaluations as detailed in the section titled "Compatibility" must be performed to verify that the specified air content can be achieved consistently. Therefore, contact your local sales representative when concrete treated with MasterLife SRA 035 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 035 admixture. The dosage of MasterLife SRA 035 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 035 admixture is 0.5 to 1.5 gal/yd<sup>3</sup> (2.5 to 7.5 L/m<sup>3</sup>). However, dosages outside of this range may be required depending on the level of shrinkage reduction needed for a given application and because of variations in concrete materials, jobsite conditions and other factors. In such cases, contact your local sales representative for further guidance.

**Dispensing and Mixing:** MasterLife SRA 035 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 035 admixture used. If the delayed addition method is used, mixing at high speed for 3-5 minutes after the addition of MasterLife SRA 035 admixture will result in mixture uniformity.

## Product Notes

**Corrosivity:** Non-Chloride, Non-Corrosive: MasterLife SRA 035 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 035 admixture.

**Compatibility:** MasterLife SRA 035 admixture is compatible with all air entrainers, water-reducers, mid-range water-reducers, high-range water reducers, set retarders, accelerators, silica fume, and corrosion inhibitors. For air-entrained concrete applications, MasterAir® AE 200 admixture is the preferred air entrainer. The dosage of air entrainer must 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 035 admixture should be added separately to the concrete mixture to ensure desired results.

## Storage and Handling

**Storage Temperature:** MasterLife SRA 035 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 Safety Data Sheet. MasterLife SRA 035 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 035 admixture freezes, thaw and reconstitute by mild mechanical agitation. Do not use pressurized air for agitation.

**Shelf Life:** MasterLife SRA 035 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 035 admixture has been exceeded.

## Packaging

MasterLife SRA 035 admixture is available in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

## Related Documents

Safety Data Sheets: MasterLife SRA 035 admixture

## Additional Information

For additional information on MasterLife SRA 035 admixture, or its use in developing a concrete mixture with special performance characteristics, contact your local sales representative.

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*Utilizing worldwide resources, the Master Builders Solutions community of experts are passionate about providing solutions to challenges within all stages of construction, as well as the life cycle of a structure. At Master Builders Solutions we create sustainable solutions for construction around the globe.*

## Limited Warranty Notice

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