

MasterSure[®] EW

**New admixture line
for an extreme
workability
retention**



MasterSure® EW

Overview

The goal of a concrete producer is simple: the delivery of a consistent concrete quality. However, maintaining the workability of fresh concrete over time, especially when materials can vary in composition, can pose a significant challenge for ready-mix concrete producers. Traditional methods for managing workability loss over time have generally proven unreliable and costly, both for the concrete producer and the contractor.



MasterSure® EW, a new line of admixtures from Master Builders Solutions, is an effective method for obtaining extremely workable concrete over time, helping concrete producers to improve the quality and optimize costs.

A technology beyond all limits

The MasterSure® EW (Extreme Workability) line is the new proposal from Master Builders Solutions for obtaining extreme concrete performance in terms of workability maintenance, to match the different types of new cements with low content of clinker, sand, not perfectly clean aggregates and the use of recycled water.

The innovative chemistry of MasterSure® EW, developed at the Master Builders Solutions research laboratories, is based on a new generation of polymers specifically synthesized for the progressive release of dispersant molecules over time.

This allows for a workable concrete throughout the entire time required for transport and placement for very long periods,

even exceeding two hours, and in extreme climatic conditions of high temperatures.

Master Builders Solutions' MasterSure® EW line represents a new era in concrete performance technology that allow the ready mix concrete manufacturers to save time and money.

MasterSure® EW is recommended for:

- Concrete requiring extended workability retention under extreme conditions;
- Concrete pumpable over long distances;
- Concrete with workability retention requirements including consistency class S3;
- Concrete with "difficult" sands and aggregates.

How to manage loss of workability	Comments:
Water Additions Simple and economical, adding water on site is a practice that should not be used except when designing higher-performance concrete.	• It impacts long-term compressive strength and durability. • It increases mix costs if the cement is dosed more. • It increases placement times. • In some projects, adding water is prohibited because it changes the water-cement ratio.
Re-tempering with admixture Re-addition of admixture on site is a difficult practice to manage and control, as it could change the concrete mix design.	• In some projects, re-tempering with admixture is not permitted. • It increases mix costs and alters the mix design. • It is difficult to manage the quantities of admixture to be re-added, with the risk of segregation if the dosage is exceeded.
Preparing a higher workable concrete that required A simple, often used solution.	• Requires in-depth knowledge of workability loss over time, continuous monitoring and adjustments to the mix design. • Increases mix costs.
Hydration Control / Addition of Retarders A simple solution, often used to address issues of loss of workability over very long transportation to the job site. Using a retarder as a second addition provides predictable results based on proven mix designs.	• Increases mix design cost. • Potential impact on setting times. • Longer demoulding times. • Lower compressive strength development at early curing times.



Benefits of MasterSure® EW line

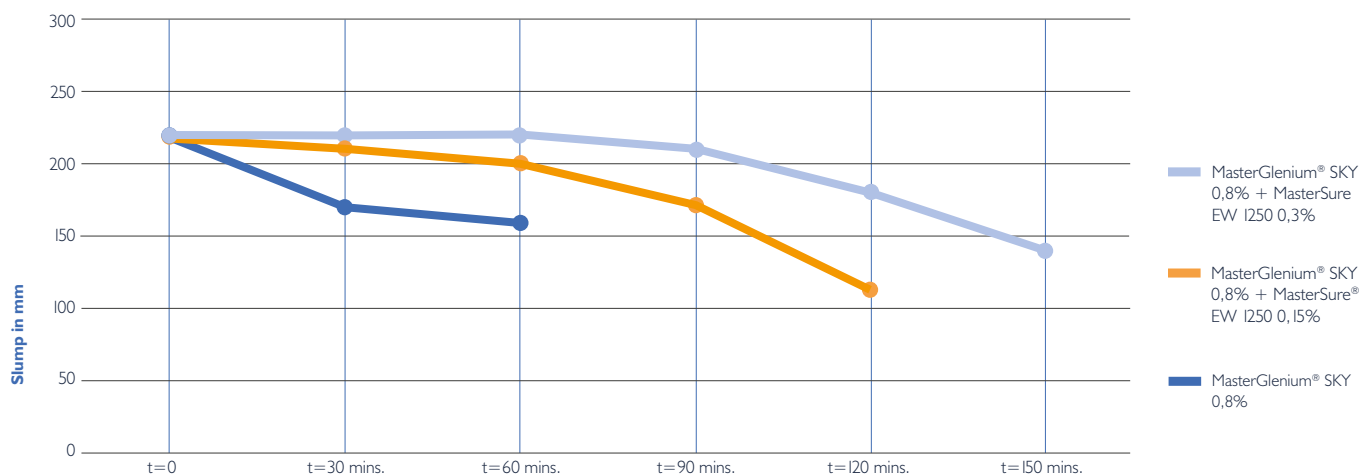
Benefits of MasterSure® EW line

- Avoid the re-addition of water on site.
- Flexibility in dosing to achieve initial slump and maintain workability without delays in setting.
- Consistency between loads in terms of initial workability and compressive strength.
- Management of different concrete classes with a single admixture.
- Maximize the number of loads while maintaining consistent concrete quality and increasing customer satisfaction/loyalty.
- Increased yield in ready-mix concrete transport and faster delivery times.
- Better management of material variability, cement, sand, and aggregates.
- Concrete uniformity and excellent finish.

Concrete laboratory tests for the evaluation of MasterSure® EW I250

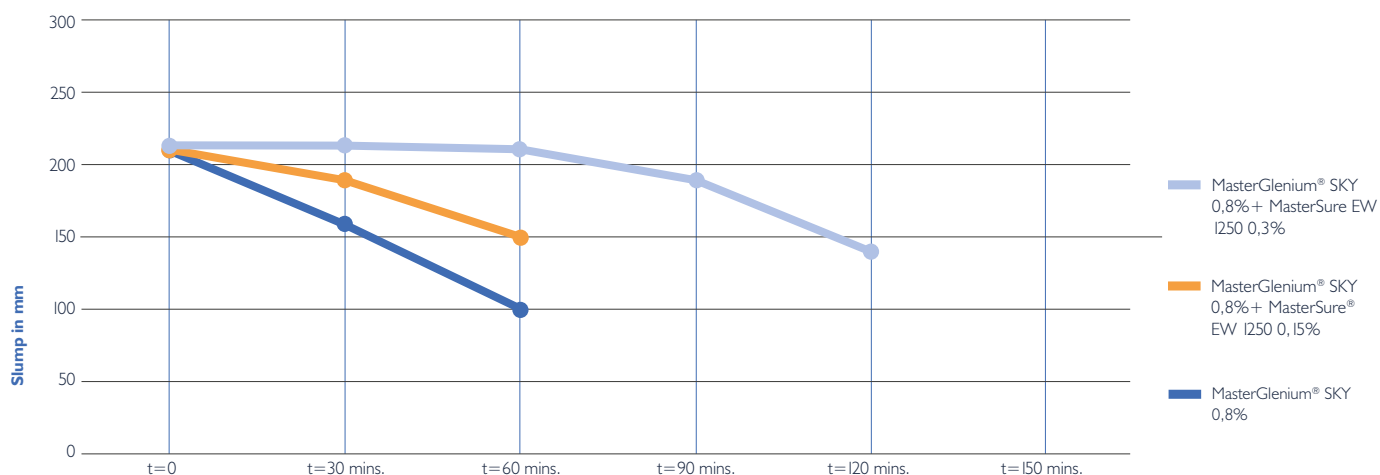
Workability retention at 30°C - slump in mm

Cement type II/A-LL 42.5 R dosage 330 kg/m³ A/C = 0,50



Workability retention at 30°C - slump in mm

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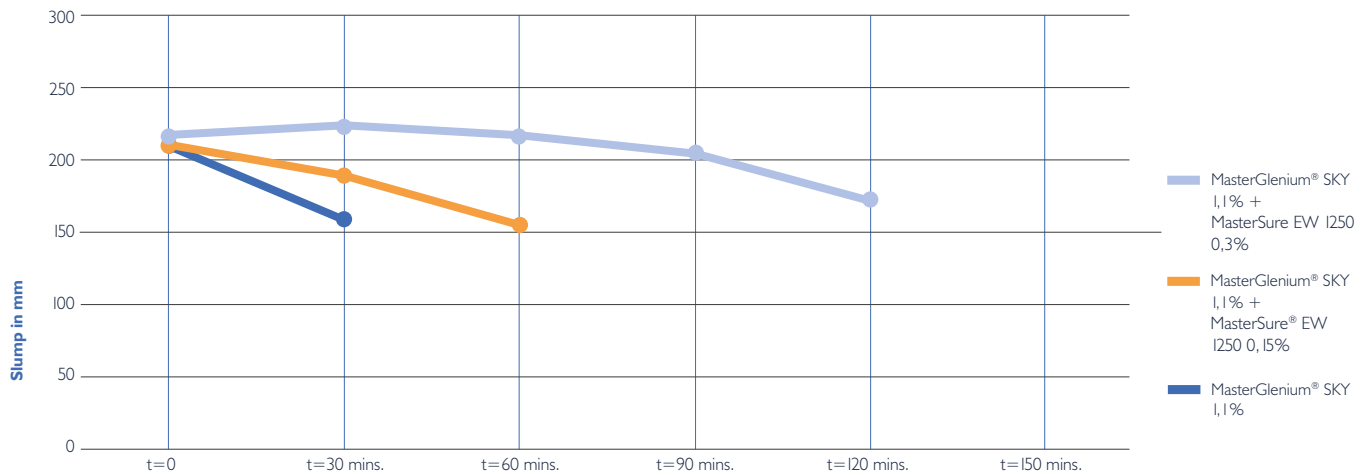


Benefits of MasterSure® EW line

Concrete laboratory tests for the evaluation of MasterSure® EW I250

Workability retention at 30°C - slump in mm

Cement type IV/A-P 42,5 N dosage 330 kg/m³ A/C = 0,50



Product Range - Guidelines

MasterSure® EW I250

Admixture to extend the workability to use as a second addition in the most difficult cases, for very long workability maintenance under very extreme conditions. To combine with other superplasticizers, particularly those from the MasterGlenium® SKY or MasterEase® lines.

MasterSure® EW I270

Excellent water reduction and excellent workability retention in more temperate climates. Maintains workability even at S3 consistency.

MasterSure® EW I280

Excellent water reduction and excellent workability retention with highly absorbent materials, sands with high blue values.

MasterSure® EW I290

Excellent water reduction and excellent workability retention in extreme conditions with less-than-perfectly clean sand and recycled water.



Using MasterSure® EW allows you to obtain a concrete that can be worked under the most difficult conditions.

Master Builders Solutions®

As Master Builders Solutions®, we are a leading global producer of responsible solutions for the construction industry, focussed on delivering our vision: **Inspiring people to build better.**

We provide value-added technology and market-leading R&D capabilities to improve the performance of construction materials and to enable the reduction of CO₂ emissions in the production of concrete. The comprehensive portfolio under the Master Builders Solutions® brand encompasses concrete admixtures, cement additives, and solutions for underground construction.

We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide, leveraging global technologies, as well as our in-depth knowledge of local building needs, to develop innovations that help make you more successful and drive sustainable construction.

Founded in 1909, Master Builders Solutions® operates 35 production sites globally, supporting you in mastering your building challenges of today and tomorrow – for a decarbonised future.



Master Builders Solutions® for the Construction Industry

MasterAir®

Complete solutions for air
entrained concrete

MasterCast®

Solutions for the manufactured
concrete product industry

MasterCem®

Solutions for cement manufacture

MasterCO₂re™

Solutions for low-clinker concrete

MasterColor®

Solutions for architectural concrete

MasterEase®

Low viscosity for high
performance concrete

MasterFiber®

Comprehensive solutions
for fiber reinforced concrete

MasterFinish®

Solutions for formwork treatment
and surface improvement

MasterGlenium®

Solutions for high performance
concrete

MasterKure®

Solutions for concrete curing.

MasterLife®

Solutions for enhanced durability

MasterMatrix®

Advanced rheology control
for concrete

MasterPel®

Solutions for hydrophobization,
anti-efflorescence and surface
protection

MasterRheobuild®

Solutions for high strength concrete

MasterRoc®

Solutions for underground
construction and surface
improvement

MasterSet®

Solutions for set control

MasterSuna®

Solutions for sand
and gravel in concrete

MasterSure®

Solutions for extraordinary
workability retention

Master X-Seed®

Advanced accelerator
solutions for concrete

Unveil the Power of MasterCO₂re™: Intelligent Cluster System for Low-clinker Concrete Production

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