MasterSure® Z 60
The cost-effective Admixture to maintain concrete consistency.
The goal of any concrete producer is simple — deliver consistent concrete on a consistent basis. Yet, maintaining workability in fresh concrete can be a major challenge for producers, given the fact that concrete properties begin to change immediately after batching. Traditional methods of managing the inevitable loss of workability over time generally have proven inexact and costly for both the producer and contractor’s bottom line.

MasterSure Z 60 admixture from BASF delivers a more effective means of slump retention while helping concrete producers improve quality and save money.
Breakthrough Technology

MasterSure Z 60 is a workability-retaining admixture that provides flexible degrees of slump retention without retardation. Part of a new generation of polymers in BASF’s vast range of innovative concrete admixtures, MasterSure Z 60 admixture represents a new era of performance technology.

This first-of-its-kind solution works as a time-released dispersant that continuously supplies a special polymer to the surfaces of cement grains to keep them from agglomerating. The result is a concrete mixture that can remain consistent for an extended period of time – with slump retention of more than two hours for ready-mixed concrete and more than 45 minutes for precast concrete – saving time and money for producers.

Recommended uses:
- Concrete with varied slump requirements
- Concrete mixtures utilizing supplementary cementitious materials
- Concrete where high flowability, increased stability and enhanced durability are needed
- Production of self-consolidating concrete (SCC) mixtures

Common Ways to Address Slump Loss

<table>
<thead>
<tr>
<th>Method</th>
<th>Key Considerations</th>
</tr>
</thead>
</table>
| Retemper                                    | • Impacts set time, air content, bleed rate, compressive strength and long-term durability  
  Easy solution – contractors understand water addition.                                           |
| Batch concrete at a higher initial slump     | • Requires thorough knowledge of slump loss over time and continuous monitoring and adjustments of the mix  
  Easy solution – included at batch plant.                                                          |
| High-range water-reducing admixture (HRWR)  | • Increases admixture material costs  
  Common solution – redosing with HRWR will not negatively affect set time, bleed rate, compressive strength and long-term durability.  
  • Higher operational costs due to jobsite retempering  
  • Prohibited in some projects |
| Hydration-controlling or retarding admixture | • Increases admixture material costs  
  Easy solution – included at batch plant. Using a hydration-controlling or retarding admixture offers predictable results based on historical mix designs.  
  • Potential for increased air content and slump variability |
| Mechanical addition                         | • Significant costs to install and maintain  
  Automated process offers predictable slump at time of delivery, eliminating job-site retempering and re-testing, and saving operational costs.  
  • Increased mix costs due to overdesign when system retemper  
  • Increased admixture material costs when system doses HRWR |

MasterSure Z 60 allows our finishers to take their time and get a better finish on the product.

– Bobby Rochester, Metromont Corp.
MasterSure Z 60 allows us to ship farther while still maintaining workability.

– Tim Kindt, Pennsy Supply, Inc.

Benefits of MasterSure Z 60 Admixture

- Minimizes the need for jobsite slump adjustment using water or high-range water-reducing admixture
- Flexible degrees of slump and workability retention without retardation
- Load-to-load consistency in air-entrainment, slump, workability and strength
- Minimal to NO job site retempering and need for additional testing
- Fewer rejected loads and increased customer satisfaction/loyalty due to consistent quality of concrete
- Improved yield out of the truck and faster truck turnaround time
- Expanded concrete delivery range
- Excellent finishability for contractors
- Better color consistency for colored and normal concrete

The MasterSure Z 60 Advantage

<table>
<thead>
<tr>
<th>Slump, in inches</th>
<th>Initial</th>
<th>20 minutes</th>
<th>40 minutes</th>
<th>60 minutes</th>
<th>Retemper</th>
</tr>
</thead>
<tbody>
<tr>
<td>MasterSure Z 60 Admixture</td>
<td>32 in. (800 mm) spread</td>
<td>25.5 in. (645 mm) spread</td>
<td>23.75 in. (600 mm) spread</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Batch concrete at a higher initial slump
Prior to using MasterSure Z 60, we were losing slump and experiencing variable air contents between the plant and the jobsite.

– Rene Silva, ML Ready Mix Concrete

The Potential Cost of Retempering

- 45% Average concrete loads with water added on the job site
- 10 minutes Average time to test, retemper and retest a 10 yd³ (8 m³) truck
- $2 Average cost per minute to operate a ready-mixed concrete truck
- 0.50¢ Average material cost of adding on site 1 gallon of water per yd³ (5 liters of water per m³) of concrete

$30 Average material and operational costs to retemper a 10 yd³ (8 m³) truck with 2 gallons per yd³ (10 liters per m³)
Master Builders Solutions from BASF

The Master Builders Solutions brand brings all of BASF’s expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures. Master Builders Solutions is built on the experience gained from more than a century in the construction industry.

The know-how and experience of a global community of BASF construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve your specific construction challenges. We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide. We leverage global BASF 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. The comprehensive portfolio under the Master Builders Solutions brand encompasses concrete admixtures, cement additives, chemical solutions for underground construction, waterproofing solutions, sealants, concrete repair and protection solutions, performance grouts, performance flooring solutions.

Master Builders Solutions products from BASF for the Construction Industry:

- **MasterAir®**: Solutions for air-entrained concrete
- **MasterBrace®**: Solutions for concrete strengthening
- **MasterCast®**: Solutions for manufactured concrete products
- **MasterCem®**: Solutions for cement manufacture
- **MasterEmaco®**: Solutions for concrete repair
- **MasterFiber®**: Comprehensive solutions for fiber reinforced concrete
- **MasterFinish®**: Solutions for formwork treatment
- **MasterFlow®**: Solutions for precision grouting
- **MasterGlenium®**: Solutions for high-performance flowing concrete
- **MasterInject®**: Solutions for concrete injection
- **MasterKure®**: Solutions for concrete curing
- **MasterLife®**: Solutions for enhanced durability
- **MasterMatrix®**: Advanced rheology control solutions for self-consolidating concrete
- **MasterPel®**: Solutions for watertight concrete
- **MasterPolyheed®**: Solutions for moderate slump concrete with superior finishability
- **MasterPozzolith®**: Solutions for conventional slump concrete
- **MasterProtect®**: Solutions for concrete protection
- **MasterRheobuild®**: Solutions for high slump concrete
- **MasterRoc®**: Solutions for underground construction
- **MasterSeal®**: Solutions for waterproofing and sealing
- **MasterSet®**: Solutions for set control
- **MasterSure®**: Solutions for workability control
- **MasterTop®**: Solutions for industrial and commercial floors
- **Ucrete®**: Flooring solutions for harsh environments

**LIMITED WARRANTY NOTICE:** We warrant our products to be of good quality and will replace or, at our discretion, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, BASF MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and BASF shall have no other liability with respect thereto. Any claims regarding product defect must be received in writing within one (1) year from the date of shipment. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the BASF Technical Manager.

This information and all further technical advice are based on BASF’s present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. BASF SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. BASF reserves the right to make any changes according to technological progress or further developments.