

**MASTER<sup>®</sup>**  
**» BUILDERS**  
SOLUTIONS

# Autoclaved Aerated Concrete Solutions

**Process Optimization for  
Improved Product Quality**





# The 4 Values Concept applied to Autoclaved Aerated Concrete

## Process optimization and improvement of product quality

Master Builders Solutions® supports the producers of autoclaved aerated concrete (AAC) with unique technologies, offering numerous benefits, optimising all stages of the AAC process from raw material sourcing to mix design, mixing, pre-curing of the cake, demolding, cutting, autoclaving, till palletising and transportation to the customer. We offer solutions that address the 4 Values important for AAC producers which are:



1. Economics



2. Performance



3. Aesthetics



4. Durability

## Benefits of MasterCast® in the pre-curing phase

In the pre-curing phase of AAC production, setting and expansion of the cake occur at the same time. The fluidity of the fresh material and its rheology must be properly set so that both chemical reactions proceed in a harmonic and effective way. Thanks to the special design of its molecules, MasterCast® can efficiently disperse the binder particles and at the same time optimize the rheology of the fresh concrete. The result is a significantly shorter pre-curing time for optimal use of the molds, faster production and increased throughput. Alternatively, if acceleration of the pre-curing is not required, the amount of binder in the mix can be reduced generating significant cost reductions for the producer.

## Our customer approach

At Master Builders Solutions® we have a specific customer approach which is an integral part of the 4 Values concept. In cooperation with the manufacturer our experts visit AAC plants and analyze the potential solutions for process optimization and for the quality improvement of the finished elements. Tailor-made solutions can then be developed in our R&D laboratories simulating AAC production processes.



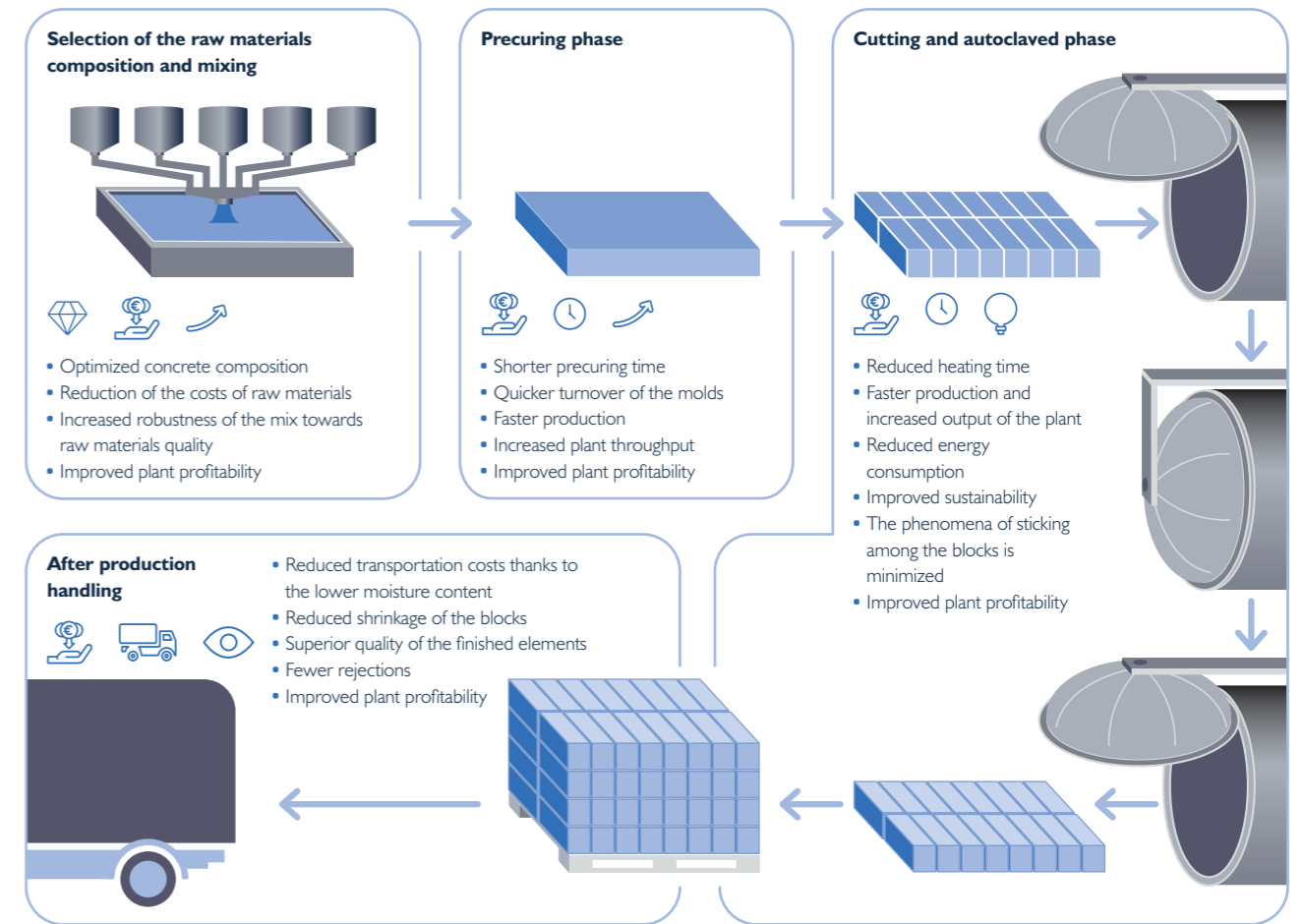
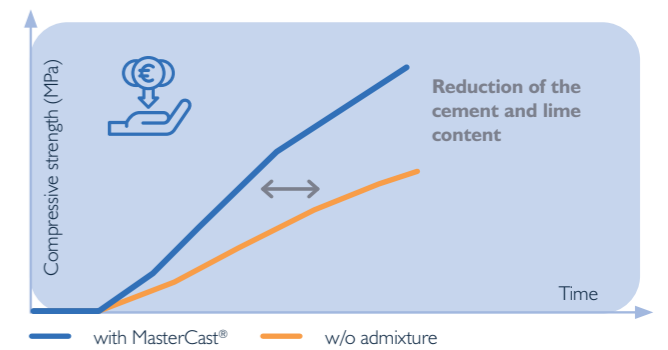
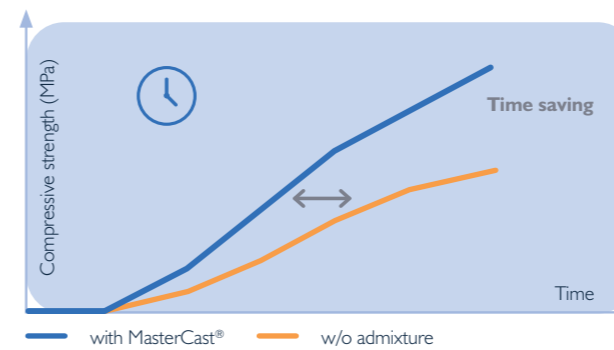
# MasterCast®

Offers Numerous Benefits for the Whole Production Process

## What can MasterCast® do in the pre-curing phase?




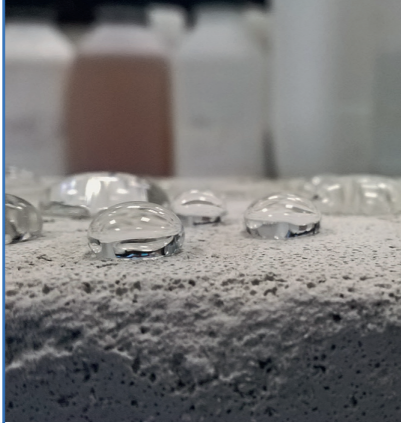


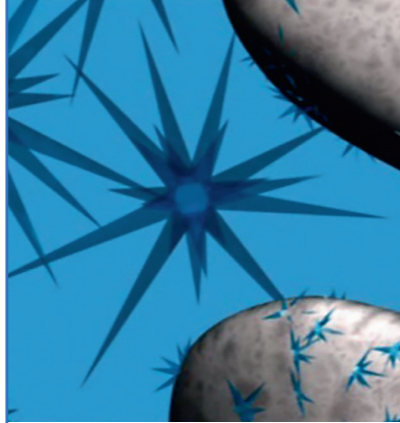


Time saving → earlier cutting → faster production

Cost saving and higher sustainability in the raw materials





# Auxiliaries for Autoclaved Aerated Concrete Products

<p><b>MasterFiber®</b></p>  <p> </p> <p>For reduced crack formation and minimized shrinkage. The fibers can form a network within the blocks, that increases stability and decreases breakages during the handling and ultimately reduces waste.</p>	<p><b>MasterPel®</b></p>  <p> </p> <p>For the hydrophobization of the blocks. The capillary absorption of moisture is reduced, while maintaining the permeability to air and water vapor. Phenomena of humidity formation in the masonry can be avoided.</p>	<p><b>Master X-Seed®</b></p>  <p> </p> <p>Accelerated hardening of concrete for quicker turnover of the molds and increased plant throughput.</p>
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## Master Builders Solutions® – Building on partnership

Our Master Builders Solutions® experts find innovative and sustainable solutions to meet your specific construction needs. Our global experience and network help you to be successful – today and tomorrow.



## Contact us!

For recommendations regarding compatibility with other chemicals or building materials, please consult your local Master Builders Solutions® Technical Advisor.

# 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 CO<sub>2</sub> 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

## MasterCO<sub>2</sub>re™

Solutions for low-clinker concrete

## MasterEase®

Low viscosity for high performance concrete

## MasterFinish®

Solutions for formwork treatment and surface improvement

## MasterFiber®

Comprehensive solutions for fiber reinforced concrete

## 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

## MasterPolyheed®

Solutions for mid-range concrete

## MasterPozzolith®

Solutions for water-reduced concrete

## MasterRheobuild®

Solutions for high strength concrete

## MasterRoc®

Solutions for underground construction and surface improvement

## MasterSet®

Solutions for set control

## MasterSphere®

Solutions for guaranteed freeze-thaw resistance

## 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 MasterCO<sub>2</sub>re™: Intelligent Cluster System for Low-clinker Concrete Production

[info.master-builders-solutions.com/en/masterco2re](http://info.master-builders-solutions.com/en/masterco2re)



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