



# Industrial Shutdowns

Product Portfolio for Time  
Critical Industrial Applications





In the power and industrial markets, Master Builders Solutions is a leading supplier of advanced solutions. Whether the need is support and alignment of pumps and turbines, repair of concrete or control and prevention of deterioration due to corrosion, Master Builders Solutions industry respected people and products provide unique solutions. Because downtime is critical in shutdown applications, Master Builders Solutions has a full range of product solutions that enable fast return to service, without sacrificing performance.



*Because downtime is critical in shutdown applications, Master Builders Solutions has a full range of product solutions that enable fast return to service, without sacrificing performance.*

# Shutdown Solutions for Industrial Applications

## Symbols Key

1 HR

2 HR

3 HR

6 HR

8 HR

24 HOURS

48 HOURS

M MORTAR DEPENDENT

A APPLICATION DEPENDENT

**NOTE: All listed service times are temperature dependent.**  
Please refer to the individual product data guides online at: [master-builders-solutions.com/EN-US](http://master-builders-solutions.com/EN-US) for application temperature ranges.

## Grouts

8 HOURS

### MasterFlow® 4316 Grout

A unique grout that provides high early and ultimate compressive strengths over a wide variety of application and service temperatures. The superior performance of MasterFlow 4316 lies in its novel hydraulic cement binder with applied nanotechnology and premium mineral aggregates which, when mixed with water, produces a flowable and pumpable grout that can be installed in temperatures ranging from 35 to 100° F (2 to 38° C).

24 HOURS

### MasterFlow 885 Metallic Aggregate Grout

This high precision grout with an extended working time is ideally suited for grouting machines and column supports. In harsh manufacturing environments, its high strength, density and malleable metallic aggregate provide superior dynamic load resistance. It tolerates wet environments, is sulfate-resistant and can be used in marine, wastewater, and sulfate-containing soil environments.

### MasterFlow 928 Extended Working Time Grout

With extended working time, this grout ensures sufficient time for placement. It can be placed from fluid to damp pack over a temperature range of 45°F to 90°F (7° to 32°C). It is ANSI/NSF approved for use with potable water, is suitable for exterior applications, and provides optimum strength and workability.

### MasterFlow 713 High Precision Grout

Ready to use and mix to a variety of consistencies, this high precision non-shrink mineral aggregate grout is easily pumped into intricate and inaccessible areas. Masterflow 713 provides maximum effective bearing area for optimum load transfer and allows for early form stripping.

24 HOURS OR 48 HOURS

### MasterFlow 648 High-Flow Grout

A three-component modified epoxy resin-based grout with variable fill rates. It combines high-temperature performance and crack resistance with excellent flow characteristics.

### MasterFlow 649 High-Performance Grout

A high-performance epoxy grouting material for support of heavy equipment. It ensures the proper transmission of static and dynamic loads to the equipment foundation.

### MasterFlow 678 Deep Pour Grout

With a long working time, this deep pour, multi-use epoxy grout can be used where deep sections of grout must be placed with low heat generation. Masterflow 678 creates a positive bond to concrete and steel.

### MasterFlow 647 Machinery Grout

Specially formulated for grouting cracks in machinery foundations, this epoxy grout is applied using either pressure injection or gravity feed. The material will penetrate and fill voids, cracks and fissures. Masterflow 647 exhibits excellent adhesion to either concrete or steel that is properly prepared whether wet, dry, or oil-contaminated and it can be used to repair cracks in concrete that contain water.

### MasterFlow 668 Chock Grout

This chock grout is highly flowable and conforms to worn or irregular surfaces. It can be used to replace metal chocks and will not deform under sustained loads.

### MasterFlow 100 General Purpose Grout

This general purpose grout can be mixed from a damp pack to flowable consistency to achieve a high degree of effective bearing area for proper support and load transfer. It cures to a concrete gray color and can be extended with clean, well-graded coarse aggregate.



## Corrosion & Protection

24 HOURS

### MasterProtect 8000CI Corrosion Inhibitor

Easy to apply and quick drying, it is a surface applied corrosion inhibitor. It will not entrap moisture and dramatically reduces corrosion rate in concrete with chloride or carbon induced corrosion. It can be applied to vertical, horizontal and overhead concrete after proper surface preparation.

M MORTAR DEPENDENT

### MasterProtect CP Anodes

These are engineered discrete zinc anodes encased in a proprietary mortar. They are easily attached and attract the corrosion from the surrounding rebar, protecting it from accelerated corrosion.

### MasterEmaco P 124 Bonding Agent

This bonding agent and rebar coating is an environmentally friendly corrosion inhibitor that has a 24 hour working time, creating jobsite flexibility. It is compatible with cementitious materials and comes in premeasured units to avoid on-site measuring.

## Concrete Repair

1 HOUR

### MasterEmaco® T 545 Repair Mortar

Setting in approximately 15 minutes, this concrete repair and anchoring material takes rubber tire traffic in 45 minutes. Its superior binding characteristics require no bonding agent and only air is required for cure. It will not freeze at temperatures above -20° F (-29° C) when appropriate precautions are taken.

### MasterEmaco T 1060 Repair Mortar

Designed for horizontal concrete surfaces, this gray colored, rapid-setting mortar is appropriate where very high early strength gain is required. It can be opened to vehicular traffic in one hour and epoxy coated in as little as 4 hours while helping prevent chloride intrusion.

### MasterEmaco S 6000 Repair Mortar

UV-resistant and rapid setting, this repair material allows fast return to service and can be used at temperatures ranging from 14° F to 104° F° (-10 to 40° C). This material has excellent bonding characteristics to a variety of concrete surfaces.

2 HOUR

### MasterEmaco T 415 Repair Mortar

Producing high early strengths at a wide range of temperatures, this rapid strength repair mortar can be placed into service for standard rubber tire traffic in as little as 2 hours. MasterEmaco T 415 can be coated with epoxy within 4 hours and does not require a bonding agent.

6 HOUR

### MasterEmaco T 950MA Repair Mortar

This epoxy resin-based repair mortar is used to create durable repairs in heavy duty environments. MasterEmaco T 950MA can be used for thin, long-lasting repairs with excellent adhesion to base concrete and can be traffic ready in 4–6 hours at 70° F (21° C).

24 HRS

### MasterEmaco S 488CI Repair Mortar

Applied vertically or overhead by trowel or low pressure spray, this structural repair mortar is fiber reinforced. Its integral corrosion inhibitor and density makes it ideal for wet, corrosive environments. Mixing requires only the addition of water. NSF Certified for use in certain potable water applications.

### MasterEmaco T 310CI Repair Mortar

This flowable repair mortar is used for patching or resurfacing distressed horizontal concrete surfaces. It resists chloride and moisture intrusion and can be ready for pedestrian traffic in 4 hours and vehicular traffic in 1 day.



## Strengthening

A APPLICATION DEPENDENT

### MasterBrace®

A composite strengthening system used to upgrade load bearing capabilities of concrete and masonry structures, restore capacity due to deterioration, correct construction errors and for seismic retrofit.

### MasterBrace 6000UW

A system for concrete strengthening and structural repair of elements at or below a waterline, such as offshore oil and gas structures, dams, piers, pipelines and chemical processing facilities.

## Protective Coatings & Water Intrusion

24 HRS

### MasterProtect® 170CR Epoxy Coating

A high build, 100% solids epoxy coating. It provides resistance to harsh chemicals, including 98% sulfuric acid, and can be used as a topcoat over epoxy and polyurethane coatings.

## Adhesive and Crack Repair

1 HOUR

### MasterSeal® 630 Sealant

Fast curing, this UV penetrating sealer is designed to prevent moisture and ion ingress into substrates. This very low viscosity product is formulated to penetrate, repair and seal cracks in concrete surfaces. Surface can be returned to traffic in 1 hour.

A APPLICATION DEPENDENT

### MasterInject® 1380 Injection Resin

A general purpose structural concrete bonding injection resin that can be used in cracks from 0.005 to 0.25". Its fast cure rate allows a quick return to service.



## Master Builders Solutions

The Master Builders Solutions brand brings all of MBCC Groups 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 MBCC Group 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 MBCC Group 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 and performance flooring solutions.

## Master Builders Solutions products for the Construction Industry:

### MasterAir®

Solutions for air-entrained concrete

### MasterBrace®

Solutions for concrete strengthening

### MasterCast®

Solutions for manufactured concrete product industry

### MasterCem®

Solutions for cement manufacture

### MasterEmaco®

Solutions for concrete repair

### MasterFinish®

Solutions for formwork treatment

### MasterFlow®

Solutions for precision grouting

### MasterFiber®

Comprehensive solutions for fiber reinforced concrete

### MasterGlenium®

Solutions for high-performance 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 water tight concrete

### MasterPolyheed®

Solutions for high-performance concrete

### MasterPozzolith®

Solutions for water-reduced concrete

### MasterProtect®

Solutions for concrete protection

### MasterRheobuild®

Solutions for super-plasticized concrete

### MasterRoc®

Solutions for underground construction

### MasterSeal®

Solutions for waterproofing and sealing

### MasterSet®

Solutions for retardation control

### MasterSure®

Solutions for workability control

### MasterTop®

Solutions for industrial and commercial floors

### Ucrete®

Flooring solutions for harsh environments

**Master Builders Solutions**  
**Constructions Systems US, LLC**  
 889 Valley Park Drive  
 Shakopee, MN 55379 USA

**Customer Service (800) 433-9517**  
**Technical Service (800) 243-6739**  
[master-builders-solutions.com/EN-US](http://master-builders-solutions.com/EN-US)



© registered trademark of a Group member  
 in many countries of the world

© 2021 MBCC Group, 1030722 rev 03/2021

**LIMITED WARRANTY NOTICE:** Master Builders Solutions Construction Systems US, LLC ("Master Builders") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. Master Builders MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. Master Builders WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders present knowledge and experience. However, Master Builders 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, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.