



**Ucrete®**

Solutions for  
flooring in breweries





## Master Builders Solutions



The **Master Builders Solutions** brand brings all of its 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 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 Master Builders Solutions 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 & protection solutions, performance grouts, performance flooring solutions.



Working with some of the major companies in the brewing, food and beverage industries, Master Builders Solutions can provide individual tailored solutions to meet the needs of customers.

The resulting range of flooring protection products prevent downtime associated with shorter lived systems, and our repair products install and cure quickly, again ensuring minimal operational disruption.

### Flooring solutions for the brewing industry

The brewing industry is growing worldwide. Beer, once the working man's 'tippie' has experienced a global renaissance with a rapid expansion in specialty brew taverns and boutique breweries. Multi-national companies are focusing on Asia Pacific as the second fastest growth market in the world, led by China.

Plant maintenance managers and facilities planners for international brewing giants and craft brewers alike face significant challenges within their brewing and warehousing facilities. Whether selecting construction materials for new buildings or to renovate or repair old ones, the design team and owner should consider the impact of the building's use upon the durability of those products.



Every brewery is subject to many of the same issues - aggressive conditions such as: exposure to acidic materials; exposure to heat and cleaning chemicals; continually wet floors; and high volume forklift movements. These elements combine to form a harsh surrounding for the equipment and structure - one requiring specialized construction products and systems that can withstand this environment.



### Ucrete® – the solutions for harsh environment

The floors within a brewery must be dependable: safe, secure and sanitary. Production downtime in the brewing industry is costly, and thus finding solutions that limit maintenance periods are essential. Ucrete, a polyurethane concrete surfacing product, was developed in the 1960's to solve a problem with the floors in chemical plants. This innovative product quickly became the standard for the chemical industries, and by the 1990's further refining of the system had extended its use into many more applications. Globally within the brewery industry, Ucrete is one of the most widely used cementitious polyurethane flooring materials.

Global trends and an expanding world population have created demand for performance flooring in the food and beverage industry. There is a growth in the production of processed foods with the need to extend shelf lives allied with more stringent food safety regulations. Flooring systems for food and beverage plants must now be evaluated based upon their ability to be sterilized to the same degree as stainless steel, to withstand the application of cleaning chemicals, and to cope with hot oil and steam in production processes, and perform in the low temperatures associated with freezers. Ideally brewery flooring systems must provide a long service life while being seamless or grout free to ease on-going sterilization. Ucrete flooring contributes in delivering the purity demanded by your brewing process.

Ucrete is unique in that it has similar thermal characteristics to concrete; this results in a product that is unaffected by temperatures that would normally cause delamination and failure in other flooring products. Ucrete is water-based and can safely be applied to damp substrates reducing downtime in repair situations where often the production is a 'wet process'. Ucrete is biologically inert and non-tainting, which allows production to continue in other areas of the facility during installation. When cured, Ucrete will not support the growth of bacteria. Ucrete can be steam cleaned and can be disinfected to the same level as stainless steel. Chemicals used in the brewing process or in the cleaning and sterilization of facilities will not affect the aesthetics or performance of Ucrete.

With some floors still in use after more than 20 years Ucrete has proven its durability, and will provide you with the piece of mind that your facility will be able to operate without interruptions caused by flooring failures for many years.

Ucrete can be installed in a range of textures and thicknesses to cope with the environmental extremes of a brewery whilst maintaining a slip resistant and safe working surface. With an excellent range offering flexibility of performance the Ucrete system can be 'mixed and matched' to ensure the correct performance is achieved and to be resistant to the expected chemical exposure. Depending upon a facility's production process, Master Builders Solutions will suggest the optimal solution to provide the highest level of health and safety.



Master Builders Solutions can also provide a range of alternative floor systems for other parts of a facility such as warehouses laboratories or offices. The MasterTop® range of polymer floors is ideal for areas such as raw materials stores, Quality Assurance/Quality Control laboratories and finished goods storage. Utilizing the latest epoxy technology, Master Builders Solutions chemists have refined the formulations to simplify application, to ensure a long service life and to be able to adjust their slip resistance to the level needed.

In addition to the polymer based MasterTop products, Master Builders Solutions offers a range of 'dry shake' products that are installed at the time of placing the concrete. They are

mineral-based and can include a metallic aggregate when used in extremely abrasive conditions. These products, developed at the beginning of the 20th century, continue to be successfully used in high volume warehousing operations worldwide.

The installed floor looks like a well finished concrete floor, but has excellent impact resistance and more than five times the abrasion resistance of a conventional concrete floor, thereby yielding decades of service. By combining these various flooring technologies to deliver specific performance needs, Master Builders Solutions has the tools to provide you with a flooring solution that is ultimately designed to lower your life-cycle cost.





### Solutions beyond floor for breweries

Not all breweries have had the benefit of Ucrete flooring from inception, but fortunately, when they are significantly damaged or deteriorated, they can be renovated using this system. In renovation projects Ucrete can be combined with our MasterEmaco® trafficable repair products, the MasterBrace® strengthening system and our MasterInject® repair products to return the facility to its original design condition before the application of a new floor. Ucrete can be installed on new concrete (within 3-5 days depending on temperature), reducing the construction time, or on newly repaired concrete (within 2-4 days depending on temperature), minimizing production downtime.

Waste collection and treatment is a serious issue in today's urbanized environment where the need to keep rivers and waterways clean is of utmost importance. In many places the need to treat waste on site is a legal requirement, MasterProtect® range of corrosion prevention linings are the ideal solution for the waste treatment areas within a brewing facility. Unaffected by flocculation, clarifying and pH control chemicals, these coatings can provide the peace of mind facilities managers demand.

### Connecting partners for better answers

Continuous innovation and tailor-made solutions ensure customers using Master Builders Solutions are more successful. We operate across the Asia Pacific region, with more than 80% of our products produced within the region. The corporate culture of Master Builders Solutions is focused upon innovations, customers and safety. Master Builders Solutions has been rated among the top employers in many countries throughout the region because we ensure workplace safety, support the communities in which we are located, and strive to utilize and produce safe and environmentally appropriate technologies.

Master Builders Solutions offers a wide range of building construction products, concentrating on performance flooring solutions, repair and protection solutions, precision grouting solutions and waterproofing solutions. Our internationally connected technical experts and our local sales force combine forces to ensure that solutions are tailored to meet local conditions.



# Master Builders Solutions for the Construction Industry

**MasterAir®**

Complete solutions for air entrained concrete

**MasterBrace®**

Solutions for concrete strengthening

**MasterCast®**

Solutions for the 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 hyperplasticized 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 superplasticized concrete

**MasterSeal®**

Solutions for waterproofing and sealing

**MasterRoc®**

Solutions for underground construction

**MasterSet®**

Solutions for retardation control

**MasterSure®**

Solutions for workability control

**MasterTop®**

Solutions for industrial and commercial floors

**Master X-Seed®**

Advanced accelerator solutions for pre-cast concrete

**Ucrete®**

Flooring solutions for harsh environments

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