



Solutions for construction systems



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 and performance flooring solutions.

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 through 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 local sales personnel work to deliver effective solutions tailored to local conditions and industry needs.

Concrete repair and protection solutions

Changing weather conditions and environmental pollution take their toll on concrete structures. Our repair and protection solutions help to extend concrete structure's life span with safe and proven products that have been developed with the understanding of the chemistry behind the process of concrete degradation. Whether it is a balcony or a bridge that needs repairing, We offer integrated solutions for any construction.

Proper maintenance of a concrete structure is essential to guarantee its designed lifetime. However, when deterioration occurs, a repair methodology needs to be taken into consideration the environment and the causes of the deterioration. Master Builders Solutions has formulated a range of systems conforming to local and international standards that meet rigorous demands of application in the climates and environment encountered in Asia Pacific. Our MasterEmaco® repair mortars are formulated to resist cracking and to be

compatible with the base structure. Master Builders Solutions has been able to achieve this because of our understanding of the chemistry of the hardening of cementitious products and by incorporating the latest advances in hydration control. Master Builders Solutions couples these advanced MasterEmaco repair products with passive MasterProtect® cathodic protection and MasterProtect anti carbonation and protective coatings to create systems to return a structure to its design characteristics and to prevent further degradation. Master Builders Solutions has ranges suitable for rehabilitation of wharves, bridges, roads, tunnels, buildings as well as sewers and water retaining structures.

Concrete and masonry structural strengthening

MasterBrace® composite strengthening solutions, uses aerospace-grade carbon fibers, glass fibers and aramid fibers and engineered epoxy resins to create an externally bonded fiber reinforced plastic reinforcement system that has proven itself in applications ranging from increased load capacity of bridges, additional floors for car parks, high load limits for supermarket floors and seismic retrofit for concrete and masonry. The MasterBrace system combines the use of sheets, laminates and bars to provide the ultimate in flexibility, constructability and short installation time.

Crack repair and injection resins

Master Builders Solutions polymer crack repair injection resins are used for repairing cracks in concrete. Our MasterInject® epoxy resins for structural crack repair are often used in conjunction with our MasterBrace or MasterEmaco products. The MasterInject polyurethane and acrylic injection resins are for the control of active water infiltration and are used in conjunction with our MasterSeal® waterproofing products.

Grouting solutions

Precision grouts are flowable construction materials used for structural stabilization and load transfer. Master Builders Solutions offers a complete line of cementitious and polymer-based grouting materials for precision grouting of machinery.

The MasterFlow® range of precision grouts has evolved through over 80 years of innovation and product development. The engineering demands on grouts of load transmission, dimensional stability, durability and toughness coupled with ease of application have been the driving forces behind our development. MasterFlow epoxy based grouts were developed to meet the need of fast return of the equipment to service and could be in areas of moderate chemical exposure. The move to develop alternative energy sources has led to the construction of wind turbines requiring grouts able to be installed at low temperatures and to withstand high dynamic forces not found in normal grouting installations. MasterFlow grouts have continued to evolve, providing the engineer with the vital link between equipment and foundation for all types of construction.

Performance flooring solutions

Master Builders Solutions develops and markets durable and attractive industrial and commercial flooring using cementitious, epoxy and polyurethane resin technologies. Our competence in flooring and protective coatings is based on many years' experience gained across the world in a variety of climatic and service conditions. We have specified, manufactured and supplied millions of square metres of performance flooring globally for an international client base.

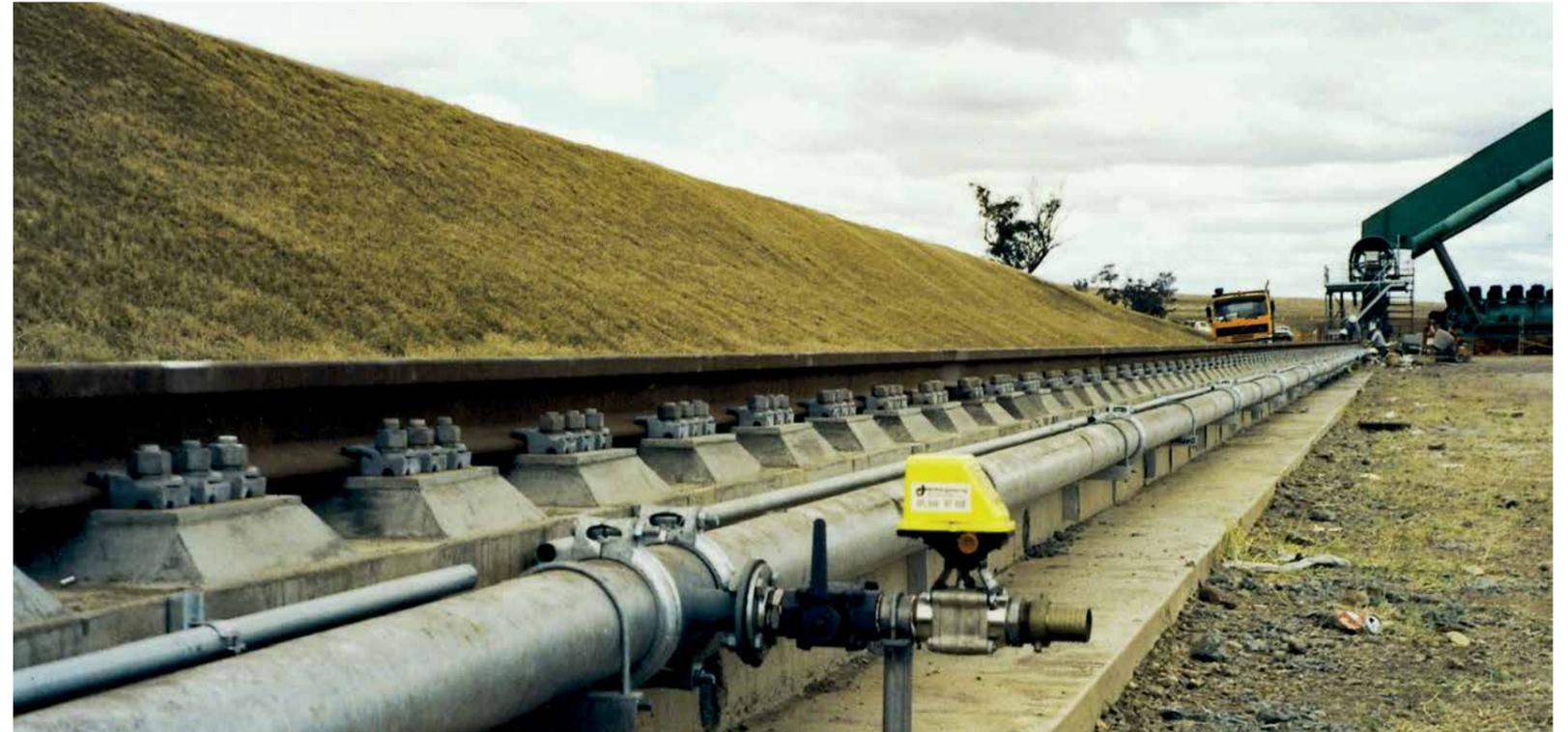
Our MasterTop® product range offers cementitious, epoxy and polyurethane-based flooring systems for decorative or industrial use. The MasterTop cementitious floors applied at the time of concrete installation are ideal for situations where the floor will be subject to high traffic loads or abrasive environments. The MasterTop epoxy floor range includes general purpose to highly chemically resistant

floors for industrial environments.

The MasterTop polyurethane range includes decorative and durable architectural and commercial flooring systems with choice of colour, texture and performance properties.

Master Builders Solutions' world leading Ucrete® floors are the choice of the chemical and food and beverage manufacturers worldwide due to their high resistance to chemicals, heat and superior wear characteristics. Ucrete, a heavy duty polyurethane cement hybrid has superior chemical resistance and being water based can be applied onto damp substrates. Their fast curing characteristics and ability to be disinfected to the same level as stainless steel has made them the floor of choice for food manufacturers globally.

MasterTop and Ucrete are acknowledged internationally as the benchmark for industrial flooring systems.



Waterproofing solutions

Our waterproofing systems for concrete structures can keep water in or keep water and contaminants from entering the structure. Our range includes cementitious based polymer modified waterproofing for internal wet areas or for water retaining structures like water tanks and swimming pools. Master Builders Solutions' knowledge of polyurethane and polyurea chemistry has created MasterSeal flexible and tough spray applied membrane systems. Ideal for protecting complex structures they have found their way into roofing applications as well

as below grade applications. Spray applied and very fast curing means that the structure can be waterproofed quickly thus speeding up construction. MasterSeal systems have the benefit of being cold applied, avoiding the odour and fire risk of hot works, and are ideal for vertical surfaces too, allowing easy application to complicated details. Specific solutions for constructions like podiums, reservoirs, secondary containment and below-ground structures are possible with the MasterSeal waterproofing solutions.



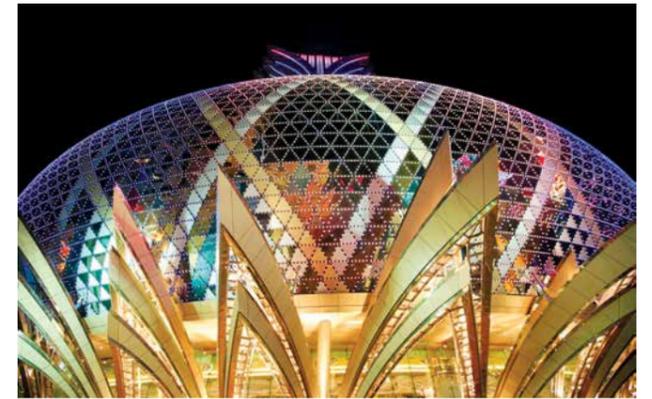


Waterproofing for car parks

MasterSeal car park waterproofing and surfacing protection systems use the latest polyurethane technologies. Our competence in both car park refurbishment and new build applications is based on many years' experience gained across the world in a variety of climatic and service conditions, specifying, manufacturing and supplying over one million square metres of deck membrane and coating systems internationally.

With Master Builders Solutions you can be sure that our systems meet the most exacting physical and chemical resistance needs. Combined with our packages for concrete repair and protection, structural strengthening and expansion joints, we are the only supplier to be able to offer a complete solution to structural waterproofing and protection problems.

Mastering the greatest construction challenges requires the right partner. Master Builders Solutions is fully committed to be your best connected partner that you can rely on for your coming projects.



Project references

New Zealand

Lion Nathan Brewery

Hong Kong

Stonecutters Bridge

Singapore

Resorts World at Sentosa

Indonesia

Freeport Mine

Malaysia

National Mosque

Thailand

Ploenchit Tower Project

Australia

Flinders Street Station

Vietnam

Sakata Inx Vietnam Co., Ltd

Macao

Grand Lisboa Casino

China

Shanghai Modern Art Museum

Korea

Lotte-Samkang / Cheong-An

Taiwan

The Main Stadium of 2009 World Games

Japan

Lion Foods

India

Bangalore Airport



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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