



# Construction Systems

# Concrete Repair Systems

## Project Requirement

## Application

## Application Solutions

## Product Selection

### Primers and Bonding Agents

SBR polymer-based bonding and modifying agent: For concrete and mortars	Brush, roller or spray	For use with cement as a bonding slurry, weather resistant exterior or interior renderings, floor screeds and toppings, or plasters for improved chemical resistance, repair of honeycombed and spalled concrete, beams and precast elements, and as bonding agent	MasterEmaco P 157
Cement based bonding agent and reinforcement primer	Brush or roller	Substrate concrete primer, compatible with repair mortars, with an added corrosion inhibitor and also for the protection of reinforcement steel	MasterEmaco P 5000AP

### Cementitious Mortars

R1 Fairing coat: Thin layer, non-structural	Hand trowel	Levelling uneven surfaces, filling honeycombs and pin holes, topping (render) of up to 3mm thick, thin resurfacing of damaged concrete surfaces, such as in rain damaged slabs and for use in non-moving crack repairs	MasterEmaco N 5100
R1 non-structural, single component, polymer modified, repair and reprofiling mortar with active corrosion inhibition		Ideal for general, non-structural patch repairs where high build properties allowing up to 100mm thickness in one layer are required. Can be applied as a smoothing or levelling coat at only 5mm thick on large vertical and overhead areas to achieve a more aesthetic finish e.g. prior to painting	MasterEmaco N 102CI
R2 Non-structural patch repair mortar: Light weight, low shrinkage, active corrosion inhibitor, low resistivity, suitable for galvanic anodes	Trowel or wet spray	Repair of balconies edges, building facades, parapet walls, precast panels, beam edges and stair nosing, a smoothing or levelling coat at 3mm thickness on large vertical and overhead areas	MasterEmaco N 5200CI
R3 Structural patch repair mortar: Low shrinkage, active corrosion inhibitor, low resistivity, potable water approved	Trowel or wet spray	Structural repair of low to medium strength (25 - 50MPa) concrete elements such as balcony edges, soffits and decks, window ledges, lintels and beams or anywhere where concrete structures need to be repaired or re-profiled by hand	MasterEmaco S 5300CI
R4 Structural repair mortar: 30 - 70MPa substrate, high build, very low shrinkage, sulphate resistant	Hand trowel	Bridge bearing pad mortar, structural repair for airport runways, ports or marine areas, mechanical industries, protection against aggressive water containing sulphates, sulphides, chloride, etc., repair of concrete members subjected to repetitive stresses, vertical, overhead and horizontal applications	<ul style="list-style-type: none"> <li>BluCem HB50</li> <li>MasterEmaco S 5400CI</li> <li>MasterEmaco S 488CI</li> </ul>
Structural repair mortar: Large volume applications, high build, high strength, low shrinkage, reduced down time	Dry spray	Structural repairs of beams, columns and slabs, floor repair and topping, she-bolt hole repair, airport runways, repairs to the underside of bridge decks, bridge piers and beams, tunnels, drains, marine structures, sea walls, and culverts. Tunnel linings and embankment stabilisation	<ul style="list-style-type: none"> <li>BluCem HB60</li> <li>MasterEmaco S 820CI</li> <li>MasterRoc STS10</li> </ul>
Structural repair mortar: Large volume applications, high build, high strength, low shrinkage, reduced down time	Dry spray	Repairs to the underside of bridge decks, bridge piers and beams, tunnels, drains, marine structures, sea walls, and culverts where impressed current cathodic protection systems are used	BluCem HB55
Structural repair low resistivity mortar: Large volume applications, high build, high strength, low shrinkage, suitable for galvanic anodes		Repairs to eroded concrete piles, sea walls, wharves, leaks or joints, concrete reservoirs, swimming pools, pipelines and wells	MasterEmaco S 822CI
Structural mortar, under water application: Low shrinkage, rapid setting	Hand trowel	Repairs to eroded concrete piles, sea walls, wharves, leaks or joints, concrete reservoirs, swimming pools, pipelines and wells	MasterEmaco S 902



# Concrete Repair Systems

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<b>Cementitious Mortars</b>			
Structural mortar, under water application: Low shrinkage, rapid setting	Hand trowel	Repairs to eroded concrete piles, sea walls, wharves, leaks or joints, concrete reservoirs, swimming pools, pipelines and wells	MasterEmaco S 902
Rapid strength gain repair mortar: Applications of large volume, congested reinforcement, complex architectural details. Very low shrinkage, Class C, reduced time	Form and pour or pumped	Free flowing, self-compacting grout, structural repair of beams, columns and slabs, airport lighting installation, rock bolting, grouting airport runway repairs, rock bolt grouting, rock fissure grouting and precast grouting underpinning	BluCem HE80
Rapid setting trafficable repair mortar that sets in 15 minutes used for highway and heavy industrial repair jobs	Hand trowel	Recommended uses: Bridge deck and highway overlays, concrete pavement joint repairs, airport runway light installations, full depth structural repairs, Expansion device nosing, anchoring steel bridge and balcony railings, commercial freezer room repairs, loading dock repairs, parking deck and ramp repairs, heavy industrial repairs	MasterEmaco T 545
Fast setting trafficable patching mortar: APS polymer technology, chemical resistance, impact and abrasion resistance, application temperature -25°C to 5°C	Hand trowel	Fast repairs in food and beverage industry, cold stores, freezers, rapid repairs to concrete slabs, supermarkets, airport runways and taxi ways, roadways and joint nosing	MasterEmaco T 2040
Rapid setting trafficable repair mortar: Low drying shrinkage, high strength, active corrosion inhibitor	Form and pour or pumped	Repair solutions include, flooring, overlays, pavements, traffic surfaces, pre and post stressed concrete, bridges, airport runway lighting, balcony railings, parking decks and more	BluCem LH60
Flowable, extra high-strength, high modulus, shrinkage compensated R4 structural repair mortar with active corrosion inhibition		Structural repair of concrete elements such as: Columns, piers and cross beams of all bridges, cooling towers and chimneys and other industrial environments, marine structures, water treatment and sewerage facilities, tunnels, pipes, outfalls and all below ground construction especially in harsh ground conditions. All form and pour repairs	MasterEmaco S 5440CI
<b>Resinous Repair, Injection Resins</b>			
Epoxy bonding agent for concrete and repair mortars: Potable water approved	Brush or roller	Structural bonding of new to old concrete, production of epoxy resin mortars to grout bolt holes, rapid structural repair of concrete, grouting dowels, as primer and bonding agent for repair mortars requiring maximum adhesion	MasterEmaco 2525
Thixotropic paste epoxy binder and adhesive: A structural adhesive, bonding agent and binder for epoxy mortars, potable water approved	Brush or trowel	Application to horizontal or vertical surfaces to fill rough surfaces to 5mm, as a primer for vertical surfaces, as a general-purpose adhesive for structural bonding and or repairing most material, bonding metal to metal, concrete, timber etc	MasterBrace 1444
Thixotropic epoxy mortar and adhesive: For high build applications, structural bond	Trowel	Structural bonding of precast elements, fixing injection ports for crack injection, bonding a wide variety of building and construction materials, as a repair mortar, may be mixed with kiln dried sands for deep repairs (>25mm), abrasion resistant lining or repair	MasterBrace 1446
Structural concrete bonding process epoxy injection resin: Solventless, low viscosity liquid adhesive for pressure injection grouting	Injection	Developed specifically for use with the Structural Concrete Bonding Process (SCBP), structurally re-bonding cracked concrete sections, filling porous or honeycombed concrete or grout, anchoring bolts, dowels and reinforcing bars	MasterInject 1380
			BluRez Epoxy III



# Concrete Repair Systems

Project Requirement	Application	Application Solutions	Product Selection
<b>Structural Strengthening</b>			
Epoxy primer for structural strengthening	Brush or roller	For use as a primer for the concrete prior to the use of the MasterBrace 4000 adhesive when used in conjunction with MasterBrace Laminates and Bar. Also used for MasterBrace 4500 saturant when used in conjunction with MasterBrace Fabrics	MasterBrace P 3500
Epoxy resin adhesive for MasterBrace laminate system	Trowel	Used as an adhesive for the MasterBrace Laminates to concrete, steel and wood and a filling compound for irregular surfaces	MasterBrace 4000
High strength epoxy saturant for: MasterBrace fabrics	Brush, roller or trowel	Used to saturate the MasterBrace carbon, glass or aramid fabric sheets to create in situ FRP composite with the concrete structure	MasterBrace 4500
Carbon fibre laminates	Refer to: Application guide for MasterBrace	Used to increase the flexural capacity of beams and slabs, increase the general load-bearing capacity and to help reduce deflection of the overall structural element	MasterBrace LAM
Carbon fibre fabrics	Refer to: Application guide for MasterBrace	Flexural and shear strengthening elements including bridges, walls, beams, slabs, silos, chimneys, tanks, pipes, tunnels, piles etc	MasterBrace FIB
High strength and high modulus carbon fibre rods	Refer to: Application guide for MasterBrace	Can be used for slim or narrow architectural concrete, reduce deformation under working loads, increase the load-bearing capacity, increase the fatigue strength, improve the performance of cracked structures, can be buried in the structure, ideal for use in aged structures	MasterBrace MBar
Carbon fibre anchors	Refer to: Application guide for MasterBrace	Can be used for slim or narrow architectural concrete, reduce deformation under working loads, increase the load-bearing capacity, increase the fatigue strength, improve the performance of cracked structures, can be buried in the structure, ideal for use in aged structures	MasterBrace Anchor



# Concrete Protection: Sealers, Coatings and Liners

Project Requirement	Application	Application Solutions	Product Selection
<b>Penetrative Sealers</b>			
Hydrophobic impregnant, silane-based sealer: Undiluted isobutyltriethoxysilane, clear low viscosity liquid, very low molecular size for 3 to 8 mm penetration into the pore structure	Brush, roller or spray	Bridge decks, abutments, piers, soffits, etc, beams, columns and walls of buildings, exposed brick structures, car parks and marine structures	<ul style="list-style-type: none"> <li>MasterProtect H 1100</li> <li>MasterProtect H 1150</li> </ul>
Dual phase hydrophobic silane and corrosion inhibitor sealer: Low viscosity, clear liquid, 100% reactive, dual-function silane-based penetrating corrosion inhibitor	Brush, roller or spray	Steel reinforced concrete, buildings, high foot traffic areas, bridge decks, marine and other high humidity environments not subject to hydrostatic pressure, tanks, dams, spillways and culverts	<ul style="list-style-type: none"> <li>MasterProtect 8500CI</li> <li>MasterProtect 8000CI</li> </ul>
<b>Anti-Carbonation Systems</b>			
Primer for acrylic anti-carbonation coatings: Compatible with porous and non-porous substrates, vapour permeable	Brush, roller or spray	A water based acrylic primer used to prime mineral substrates prior to the application of MasterProtect topcoats	MasterProtect P 155
Elastic architectural anti-carbonation coating: High-grade acrylic resin, elastic, UV resistant, vapour permeable, dirt repellent, decorative wide colour range	Brush, roller or spray	For the long-term protection of concrete, mortar, masonry and natural stone facades, walls, bridges, balconies etc. against aggressive atmospheric attack including chloride ion or carbon dioxide ingress	<ul style="list-style-type: none"> <li>MasterProtect 150</li> <li>MasterProtect 160</li> </ul>
<b>Chemical Resistant Systems</b>			
Corrosion Protection Lining (CPL)/Chemical Resistant membrane	Approved applicators only	Segmental sewer tunnels, inlet works and bioreactor tanks in WWTP, pump stations and manholes, tunnel waterproofing, chemical retention bunds and sewer pipelines	BluSeal AKS
Acid resistant structural mortar: Low drying shrinkage, high alkalinity, high build, sustainable solution: >50% crushed recycled glass aggregates	Trowel/wet or dry spray	Structural repairs and protection of beams columns and slabs, structural sewer repairs, floor repair and topping water treatment plants	BluCem ZeoGlass
Acid resistant mortar and lining system: Low drying shrinkage, high alumina cement-based mortar	Trowel/wet or dry spray	Repairs to brick, cast in place concrete and precast concrete sewers, reinstating of linings of manholes and other access ways, tunnel linings or other places where resistance to acidic waters is required	<ul style="list-style-type: none"> <li>MasterEmaco S 620</li> <li>MasterEmaco S 682</li> </ul>
<b>Cathodic Protection: Sacrificial Anodes</b>			
Free-flowing fast setting, low resistivity grout, for embedding discrete anodes	Form and pour or pumped	Cementitious grout/mortar formulated for embedding discrete anodes used in impressed current cathodic protection installations of reinforced concrete	MasterProtect 816CP
Embedded galvanic anode for the protection of reinforcing steel	Refer to: Application guide	The sacrificial zinc core generates a small electrical current as it is consumed, protecting the reinforcing steel from accelerated corrosion	MasterProtect 8065CP/8105CP/8160CP



# Concrete Protection: Sealers, Coatings and Liners

Project Requirement

Application

Application Solutions

Product Selection

## Joint Systems

Moisture curing polyurethane primer and adhesion promoter: Solvented, single component, for use with PU sealants	Brush and roller	Adhesion promoter for application of PU sealants, substrates such as copper, stainless and galvanized steel, typically requiring the use of a primer	MasterSeal P 692
1 Component Polyurethane joint sealant	Gun	Active, exterior and interior joints that demand extreme UV resistance and long term colour integrity, including, but not limited to, expansion joints in buildings and civil structures above and below ground, construction joints and joints in precast concrete elements	MasterSeal CR 195
2 Component Polyurea hybrid joint sealant		Active, exterior and interior joints that demand extreme chemical resistance. Used in conjunction with Ucrete flooring surfaces where resistance to heat, moisture and chemicals is required. Also can be used on horizontal applications including trafficable surfaces on floors and bunds. Substrates include concrete, polyurethane concrete, Novalac epoxies and chemically resistant epoxies	MasterSeal CR 435
FPO tape sealing system for irregular and unconventional joints	Adhered to concrete surfaces	Sealing of construction joints, expansion joints, connecting joints, cracks and crevices. Typical uses are for concrete tanks, cast and cement-pipe connections, bridge decks, tunnels, water towers and reservoirs, ponds, silos, containers and secondary tanks	MasterSeal 930



# Grouts: Cementitious, Resinous, Ready-Mixed and Micro Concrete

Project Requirement	Application	Application Solutions	Product Selection
<b>Cementitious Grouts</b>			
General purpose void filling Class A construction grout: Pumpable, natural aggregate, 10 to 100mm gaps, plastic state compensated, 60MPa @ 28 days	Formed and dry packed, poured or pumped	All general purpose grouting operations with clearances of 10mm to 100mm including: Non-critical column and equipment bases, an in-fill grout for cavity block walls, in caulking of joints and pipes, between and under pre-cast panels and other joints where total load bearing is not required	MasterFlow 700
Precision void filling Class C grout for use in general civil engineering works: Non-shrink, 10 to 100mm gaps, flowable, 65MPa @ 28 days	Formed, poured or pumped	Critical equipment baseplates, soleplates and columns, precast wall panels, beams, columns, structural building members and curtain walls and patching poured in place concrete structures	MasterFlow 810 MasterFlow 870
Precision ultra-high strength Class C grouting for civil engineering applications: Pumpable, non shrink, high early and ultimate strength gain, >120 MPa @ 28 days	Poured or pumped	Concrete repair, structural repairs of beams columns and slabs, wind turbines, precast grouting and off shore pile/sleeve grouting	BluCem HS120
Precision ultra rapid strength gain Class C grout/micro concrete (grout with aggregate) for civil engineering applications	Poured or pumped	Structural repair of beams, columns and slabs, airport lighting installation, rock bolting, grouting, airport runway repairs, rock bolt grouting, rock fissure grouting, precast grouting, underpinning, the micro concrete version suitable for deeper pours and large format batch mixing	BluCem HE80 BluCem HE80AG
Precision deep pour Class C micro concrete (grout with aggregate) for civil engineering applications	Poured or pumped	Suitable for a range of deep pour applications where low heat is necessary to protect surrounding services and minimise thermal shrinkage. Structural repair of beams, columns and slabs, deep pouring of beam and columns, form and pour grouting, pile grouting, HV cable grouting and precast grouting	BluCem LH60
Underwater cementitious grout: Grouting gaps 10 to 100mm, non-shrink, flowable, non-wash out, plastic and drying shrinkage compensated, 60MPa @ 28 days	Formed and poured or pumped	Repairing structures under water and in tidal zone by grouting. The grout is suitable for use under both stationary and moving waters. Applications include repair of bridge piers, concrete piles, jetty pillars and harbour walls	MasterFlow 788
Post tensioning cable grout/additive: Void filling up to 100mm, very high fluidity, zero bleed, low shrinkage and long open time, NSW RMS and QLD TMR approved	Poured or pumped	Rock bolting, general grouting, soil and rock grouting, post tension cable grouting, rock fissure grouting, precast grouting and sand permeation	BluCem HS200 BluCem HS200A
Thixotropic rock bolt/cable bolt grout: Gravity resistant, top down grouting, zero bleed, flows when sheared, high early strength, high load transfer to rock. Acid resistant version available	Poured or pumped	Strata filling in fractured ground, overhead rock bolt grouting, rock fissure grouting, top down grouting of rock bolts, void filling where thixotropic or highly acid resistant properties are required	BluCem HS400 BluCem HS400Plus
Ultra high strength, iron reinforced, precision grout: non-shrink, ultra-high early and ultimate strengths, extended working time even at high ambient temperatures	Poured or pumped	Critical equipment baseplates, soleplates and columns, crane rails, ball mills, crushers, on-shore wind turbines requiring high torsional and dynamic loads, rolling, stamping, drawing and finishing mills for the steel and aluminium industries	MasterFlow 4600
Ultra-high strength grouting for onshore wind turbine installations	Poured or pumped	Grouting of wind turbine installations, installations where excellent fatigue resistance is required, grouting under very harsh conditions, anchoring anchor bolts of wind turbine towers, where high strength, high modulus and high ductility is present	NaxQ130/140
Low thermal resistivity grout: Deep pour grout, highly flowable and pumpable, long-distance grouting, very high thermal resistivity (low TR rating)	Poured or pumped	Encasement of conduit casings, long-distance pumping applications, bulk grouting where heat dissipation is required and high voltage cable grouting	BluCem RMX EA55



# Grouts: Cementitious, Resinous, Ready-Mixed and Micro Concrete

## Project Requirement

## Application

## Application Solutions

## Product Selection

### Cementitious Ready-Mixed Bulk Grouts

Post tensioning cable ready-mixed grout	Arrives pre-mixed in concrete agitators; poured or pumped	No on-site mixing required: Rock bolting, general grouting, soil and rock grouting, post tension cable grouting, rock fissure grouting, precast grouting and sand permeation	BluCem RMX HS200
Precision void filling Class C Construction ready-mixed grout: Non-shrink, 10 to 100mm gaps, flowable, >70MPa @ 28 days, time and labour savings	Arrives pre-mixed in concrete agitators; poured or pumped	Ready-mix grout to form a high strength cementitious grout to be used as: Structural grouting, pile jacket grouting, and annulus grouting	BluCem RMX HS80
Precision deep pour Class C Ready-mixed micro concrete (grout with aggregate)	Arrives pre-mixed in concrete agitators; poured or pumped	Ready-mix product to form a deep pour, non shrink grout/micro concrete for: Concrete repair, footings, columns and slabs, deep pouring of beam and columns, pile grouting and void grouting	BluCem RMX LH60
Low thermal resistivity ready-mixed grout	Arrives pre-mixed in concrete agitators; poured or pumped	Encasement of conduit casings, long-distance pumping applications, bulk grouting where heat dissipation is required and high voltage cable grouting	BluCem RMX EA55

### Concrete Pavement

Fast set concrete	Volumetric based continuous mixers	Airport runways, concrete road pavements/rail bridges, car parks, sewer structures, industrial process plants and mining infrastructure and precast concrete panels	BluCem FSC
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### Epoxy Grouts

Heavy duty epoxy resin grout	Poured or pumped	Machinery with high dynamic loads and vibration, backing of steel liners of ore crushing machinery in mines and quarries, in corrosive environments where chemicals, oils and solvents make cementitious grouts unsuitable	MasterFlow 618
Multi-purpose epoxy resin grout	Poured or pumped	Areas requiring a moisture insensitive bond to the concrete substrate, bolt, rebar structural anchoring, hold down bolts, baseplates and machinery grouting, crane rails and tight clearances, exterior grouting and repair applications	MasterFlow 628
High strength, high temperature, high flow epoxy resin grout	Poured or pumped	Precision alignment of machinery, compressors and prime movers in the gas transmission and other industries, foundations under crusher ball mills, slab tables and other equipment in the steel industry	MasterFlow 648



# Flooring

Project Requirement	Application	Application Solutions	Product Selection
<b>Poly-Cement</b>			
Heavy duty, non-slip polyurethane hybrid flooring system	Trowel	Specific applications include: Textile and film plants, food and beverage production, warehousing and storage, confectionery production, electronic component manufacture and assembly, pharmaceutical production and chemical plants	Ucrete DP
Smooth, heavy duty, polyurethane hybrid flooring system	Trowel	Specific applications include: Textile and film plants, food and beverage production, warehousing and storage, confectionery production, electronic component manufacture and assembly, pharmaceutical production and chemical plants	Ucrete MF
Acid resistant structural mortar: Low drying shrinkage, high alkalinity, high build, sustainable solution: >50% crushed recycled glass aggregates	Trowel	Meat, fish and poultry processing, food and beverage production, dairies, cheese and milk production, commercial and industrial kitchens, cold rooms, chillers and freezers, pharmaceutical production and chemical plants	Ucrete UD 200
The World's TOUGHEST Floor: Iron aggregate filled, heavy duty, polyurethane hybrid floor system	Trowel	Applications in the waste management, heavy engineering and manufacturing industries and wherever a robust long-lived floor is required. Waste transfer stations, transition strips, heavy engineering workshops, heavy process areas, under mixing heads, storage bunkers, loading docks and heavy equipment	Ucrete IF
<b>Polymer Flooring</b>			
High build, hard wearing, two-component epoxy resin system	Trowel/roller applied	Recommended for floors and as a corrosion resistant coating to most construction materials in: Workshops, chemical industries, pharmaceutical and cosmetic facilities, food and drink processing plants, electronic and electrical industries, mining industries, water and sewerage treatment plants, warehouses, multi-level car parks	MasterTop 1080
<b>Dry Shake</b>			
Silicon carbide aggregate floor hardener, applied as a dry shake over freshly floated concrete to provide a durable, non-slip monolithic floor	Dry shake	Recommended uses: Factories, workshops, showrooms, food and beverage processing areas, where a durable, non-rusting, non-slip floor is required to withstand moderate to heavy traffic. Providing a durable, non-slip surface on ramps, stairs, landings etc. under wet or dry conditions. Freezers and chillers with forklift traffic	MasterTop 105
Iron aggregate, dry-shake surface hardener for industrial floors needing additional abrasion resistance and impact protection	Dry shake	Specific applications include: Textile and film plants, food and beverage production, warehousing and storage, confectionery production, electronic component manufacture and assembly, pharmaceutical production and chemical plants	MasterTop 200
Heavy-duty iron aggregate topping that protects industrial flooring against impact and abrasion whilst also providing a longer service life	Trowel	Applied over prepared hardened concrete it gives significantly longer service life than either normal high strength concrete or natural aggregate toppings. Recommended uses: Areas subject to heavy abrasive traffic, impact and continuous wear, such as loading docks, aisles, waste transfer facilities, truck or tractor repair areas, and mill scale sluiceways. Areas where safety authorities have deemed other floor surfaces hazardous because of excessive wear, dangerously buckled steel plates, etc. Mining workshops with tracked vehicles. Floors with scraper blades in constant contact	MasterTop 330



# Flooring

## Project Requirement

## Application

## Application Solutions

## Product Selection

### Curing Compounds and Finishings

Evaporation retardant and finishing aid for fresh concrete: Effective in combating rapid-drying conditions such as high temperatures, low humidity and high winds

Brush, roller or spray

All types of concrete slabs, toppings, concrete repairs and finishing operations. It is not a curing agent and has no effect on hardened concrete. Concrete must still be properly cured

MasterKure III

Water based wax emulsion curing compound (clear or white)

Brush, roller or spray

For curing all types of external concrete paving; applications where damp curing is impracticable, concrete road pavements to prevent base course bonding to top course, fresh moist plain concrete. Use as a bond breaker in lift slab construction

MasterKure CC 100WB

Water based hydrocarbon resin curing compound

Brush, roller or spray

Water dispersed hydrocarbon resin based, forms a flexible film which prevents concrete drying out during the critical early stages of hydration; meets the water retention requirements of AS3799-1998

MasterKure 250

Solvent based acrylic copolymer curing compound and sealer

Brush, roller or spray

Curing plain and coloured fresh concrete floors, smooth or textured surfaces, indoor or outdoor applications. Efficiently curing all cementitious grouts and mortars including MasterFlow iron and natural aggregate

MasterKure 402

Water based acrylic copolymer curing compound and sealer

Brush, roller or spray

Curing of concrete that will have an additional topping such as cement based tile adhesives or toppings. Curing plain and coloured fresh concrete floors, smooth or textured surfaces, indoor or outdoor applications. Efficiently curing all cementitious grouts and mortars including MasterFlow iron and natural aggregate formulations.

MasterKure 404

Surface retarder for horizontal exposed aggregate concrete surfaces

Brush, roller or spray

To produce exposed aggregate architectural finishes on horizontal surfaces or on pre-cast panels produced in a horizontal plane

MasterFinish 380



# Ground Support

## Project Requirement

## Application

## Application Solutions

## Product Selection

### GRP Soil Nails and Anchors

GRP soil nails for slope stabilisation anchors	Grouted into drilled holes in slope	Applications including temporary and permanent face stabilisation, slope stabilisation, ground support and systematic rock bolting, 100 year design life rock support, ground anchors, roof support, rock reinforcement and concrete reinforcement	BluGeo GRP60
Continuous de-formed GRP reinforcement bar/mesh	Grouted into drilled holes in slope	High strength, inert reinforcement bar for use in the design of tunnelling softeyes or for reinforcement of concrete elements subjected to highly corrosive environments. High load-carrying capacity used to provide tensile strength and crack control to structural concrete elements	BluGeo GRP Reo
GRP multi-strand, temporary ground anchor	Grouted into drilled holes in slope	Used in retaining systems and when excavating a site to help prevent the excavation wall from collapsing	BluGeo GRP Cablex - S

### Rock Bolts and Anchors

DCP low profile, steel, rigid rock supporting anchor	Grouted into drilled holes in slope	100 year design life, rock support, slope stability, low clearance applications, spot bolting, roof support, rock reinforcement, retaining walls and ground anchors	BluGeo LP Rock Bolt
DCP low profile, cable flexible, mild steel anchor	Grouted into drilled holes in slope	100 year design life, rock support, slope stability, ground anchors, roof support, rock reinforcement and low clearance applications. A reliable choice for all modern tunnel bolting applications	BluGeo CF Rock Bolt
DCP steel, rigid anchor	Grouted into drilled holes in slope	100 year design life rock support, slope stability, spot bolting, roof support, rock reinforcement and ground anchors	BluGeo SR Rock Bolt
Multi-strand, removable, temporary ground anchor	Grouted into drilled holes in slope	For use in soil or low-strength rock as a removable load distributive compression (and tension) anchor, basement excavations, shafts, retaining walls and tunnel portals	BluGeo SW-RCD
Multi-strand, non-removable, temporary ground anchor	Grouted into drilled holes in slope	Used in a wide range of structure types including retaining walls, dams, wharves, bridge abutments and foundations for buildings, basement excavations, retaining walls, floor slabs, bridge abutments and tie down anchors	BluGeo SW-TTF
Multi-strand, permanent ground anchor	Grouted into drilled holes in slope	Used in a wide range of structure types including retaining walls, dams, wharves, bridge abutments and foundations for buildings, basement excavations, retaining walls, floor slabs, bridge abutments and tie down anchors	BluGeo SW-PTF



# Waterproofing Systems

## Project Requirement

## Application

## Application Solutions

## Product Selection

### Membranes

Fully welded, continuous VLDPE sheet membrane	Welded seam sheet membranes	Flexible VLDPE membrane secured to walls or roof by heat welding to rondels before double seam heat welding and testing of seams. Used for lining bored and driven tunnels, cut and cover tunnels, cross passages, shafts and underground structures, green roofs, flat and insulated roof structures	BluSeal VLDPE
Fully welded, continuous PVC sheet membrane		Flexible PVC membrane secured to walls or roof by heat welding to rondels before double seam heat welding and testing of seams. Used for lining bored and driven tunnels, cut and cover tunnels, cross passages, shafts and underground structures, green roofs, flat and insulated roof structures	BluSeal PVC
Spray applied, fully bonded waterproofing membrane	Sprayed	Cast-in-place or precast, composite designed sandwich structures (concrete/membrane/concrete), underground structures with complex profiles and geometry, bonds to steel and most sheet membranes and enables interface solutions with other waterproofing methods	MasterRoc MSL 345
Crystalline capillary waterproofing mortar	Trowel	Suitable for water tanks, reservoirs, building basements and foundations, swimming pools and water parks, sewage and water treatment plants, dams, canals, tunnels, harbours, retaining walls and sea defence walls and concrete pipes	MasterSeal 501

### Waterstops

Rear guard PVC waterstop: Provides a positive seal for in-situ concrete joints or to provide compartments in welded sheet membrane systems	Cast into concrete joints or welded to sheet membrane	150mm, 200mm, 250mm and 320mm wide profiles, positioned at the rear of concrete walls and slabs or welded behind PVC sheet membrane to provide a barrier to the ground water pathway. Applications in water tanks, basements, tunnels, sewage and water treatment plants, reservoirs, dams and spillways	BluSeal URG Waterstop
Centre guard PVC waterstop: Provides a positive seal for in-situ concrete expansion and constructions joints	Cast into concrete joints or welded to sheet membrane	150mm, 200mm, 250mm and 320mm wide profiles, positioned at the rear of concrete walls and slabs to provide a barrier to the ground water pathway. Applications in watertanks, basements, tunnels, sewage and water treatment plants, reservoirs, dams and spillways	BluSeal UCG Waterstop
Hydro swelling waterbars for joints: Ready for installation in cold joints to render the joints leak-proof. Swells in contact with water by up to 150% with a reversible swelling process	Cast into concrete joints	20mm x 10mm, 10m per roll for all construction joints exposed to hydrostatic pressure. Application includes joints between, abutments of concrete and rock, masonry, rafts and walls in tunnels and basements, steel and concrete pipes and precast elements	MasterSeal 910
PVC with an extruded aluminium crack inducer/joint former: Prevent concrete chipping and random cracking. Labour cost savings	Cast into concrete	Controlled crack inducement and joint forming in airport taxiways/parking aprons and concrete paved areas. It is introduced where a levelled groove edge is required to prevent concrete spalling caused by heavy point loading	BluSeal JForm



# Waterproofing Systems

Project Requirement	Application	Application Solutions	Product Selection
<b>Joint Sealing, Sealants, Tapes</b>			
Concrete joint sealing profile	Cast into concrete	Instant joint sealing, construction joint sealing, architectural fixing, damp area sealing, high traffic volume sealing, chemical resistant sealing, sealing concrete sewer structures and fuel bunds and structures	BluSeal JPress
Adhered elastic joint, EDPM sealing membrane: Flexible tear-resistant membrane adhered to concrete surfaces with a silane modified polymer adhesive	Adhered to concrete surfaces	Applied across construction joints to provide a flexible joint sealing solution in underground and water retaining structures, including, retaining walls, dams, wharves, bridges, basements and tie down anchors	BluSeal JS50
FPO tape sealing system for irregular and unconventional joints	Adhered to concrete surfaces	Sealing of construction joints, expansion joints, connecting joints, cracks and crevices. Typical uses are for concrete tanks, cast and cement-pipe connections, bridge decks, tunnels, water towers and reservoirs, ponds, silos, containers and secondary tanks	MasterSeal 930
Hydrophilic waterstop strip seal	Strips applied along jointing surfaces	25mm x 19mm rolls of butyl mastic sealing strips placed along construction joints which are activated by moisture to swell and create a compression seal. Applications in water tanks, basements, tunnels, sewage and water treatment plants, reservoirs, dams and spillways	BluSeal Superstop 47B
Hydrophilic gun grade waterstop	Gun applied along jointing surfaces	Gunable PU paste placed along construction joints which is activated by moisture to swell and effect a compression seal. Applications in water tanks, basements, tunnels, sewage and water treatment plants, reservoirs, dams and spillways	BluSeal Leakmaster
Re-injectable hose system	Cast into concrete	Suitable for construction joints in all structures that need to be injected to waterproof them, such as water retaining structures, tunnels and basements, buildings, bridge decks and other similar structures	MasterSeal 909
Polyurethane joint sealant	Gun	Active, exterior and interior joints that demand extreme UV resistance and long-term colour integrity including but not limited to expansion joints in buildings and civil structures above and below ground, construction joints and joints in precast concrete elements	MasterSeal CR 195
Hydrophilic polyurethane injection resin: Single component polyurethane, flexible, highly flexible for live structures, rapid foam and gel times	Injection	For the sealing/grouting of cavities in buildings, tunnel linings, concrete foundations, subterranean curtains, retaining walls, slab on ground and bridge abutments. Suitable for use in consistently damp or wet environments	BluRez CS150
Penetrative polyurethane injection resin: Two component catalysed polyurethane liquid, high foaming, very fast setting water reactive injection resin			BluRez CSW
Silane modified, thixotropic paste/adhesive	Hand cartridge	Suitable for underground civil engineering applications: Structural adhesion, movement joint sealing, architectural fixing, damp area adhesion, TBM gasket adhesion and road reflectors (cats eyes)	BluSeal AD50



# Potable Water Approved Systems (AS4020-2018)

Project Requirement	Application	Application Solutions	Product Selection
<b>Primers, Repair Mortars, Sealants and Waterproofing Systems</b>			
Cement based bonding agent and reinforcement primer	Brush or roller	Substrate concrete primer, compatible with repair mortars, with an added corrosion inhibitor and also for the protection of reinforcement steel	MasterEmaco P 5000AP
Epoxy bonding agent for concrete and repair mortars: Potable water approved	Brush or roller	Structural bonding of new to old concrete, production of epoxy resin mortars to grout bolt holes, rapid structural repair of concrete, grouting dowels, as primer and bonding agent for repair mortars requiring maximum adhesion	MasterEmaco 2525
Thixotropic paste epoxy binder and adhesive: A structural adhesive, bonding agent and binder for epoxy mortars, potable water approved	Brush or trowel	Application to horizontal or vertical surfaces to fill rough surfaces to 5mm, as a primer for vertical surfaces, as a general-purpose adhesive for structural bonding and or repairing most material, bonding metal to metal, concrete, timber etc	MasterBrace I444
Structural patch repair mortar: Low shrinkage, active corrosion inhibitor, low resistivity, potable water approved	Trowel or wet spray	Structural repair of low to medium strength (25 - 50MPa) concrete elements such as balcony edges, soffits and decks, window ledges, lintels and beams or anywhere where concrete structures need to be repaired or re-profiled by hand	MasterEmaco S 5300CI
Structural repair mortar: 30 to 70MPa substrate, high build, very low shrinkage, sulphate resistant, reduced down time	Hand trowel	Bridge bearing pad mortar, structural repair for airport runways, ports or marine areas, mechanical industries, protection against aggressive water containing sulphates, sulphides, chlorides, etc., repair of concrete members subjected to repetitive stresses, vertical, overhead and horizontal applications	MasterEmaco S 5400CI
Precision deep pour Class C micro concrete (grout with aggregate) for civil engineering applications	Poured or pumped	Suitable for a range of deep pour applications where low heat is necessary to protect surrounding services and minimise thermal shrinkage. Structural repair of beams, columns and slabs, deep pouring of beam and columns, form and pour grouting, pile grouting, HV cable grouting and precast grouting	BluCem LH60
Polyurethane joint sealant	Gun	Active, exterior and interior joints that demand extreme UV resistance and long term colour integrity including but not limited to expansion joints in buildings and civil structures above and below ground, construction joints and joints in precast concrete elements	MasterSeal CR 195
PVC tape sealing system for irregular and unconventional joints	Adhered to concrete surfaces	Sealing of construction joints, expansion joints, connecting joints, cracks and crevices. Typical uses are for concrete tanks, cast and cement-pipe connections, bridge decks, tunnels, water towers and reservoirs, ponds, silos, containers and secondary tanks	MasterSeal 930
Crystalline capillary waterproofing mortar	Trowel	Suitable for water tanks, reservoirs, building basements and foundations, swimming pools and water parks, sewage and water treatment plants, dams, canals, tunnels, harbours, retaining walls and sea defence walls and concrete pipes	MasterSeal 501



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