

Knowledge + Knowhow

Tunnels and Underground





Transport Infrastructure

Utilities Infrastructure





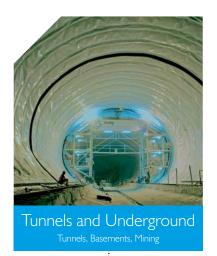
At Bluey, we provide more than industry-specific products. We have the engineering edge and experience to help you specify, plan and manage projects seamlessly from beginning to end.

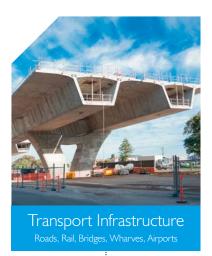
Our collaborative approach means you will have a partner by your side with the tenacity and agility to think outside the square and ensure the job gets done.

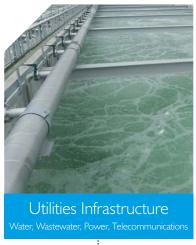
All in all, it not only makes your life easier - it means a better whole-of-life cost for your project.



Knowledge + Knowhow









Blu**Cem**

PRIMER

Blu**Cem** API0

ACRYLIC CONCRETE PRIMER

This product improves bond between layers of cementitious products by sealing the surface and preventing water from being lost at the contact interface. This allows full hydration of subsequent layers at the point of bonding and ensures full strength development.

ZINC RICH PRIMER

Blu**Cem** ZP BluCem ZP is a zinc-rich, cold galvanising primer to provide long-term cathodic protection in aggressive corrosion environments. The product is applied as a thin film coating to protect steel reinforcement against corrosion. The high zinc content in BluCem ZP will ensure that the protection provided is long lasting. Application of this product in combination with zinc anodes will also extend their active lifespan. BluCem ZP is single component, easily applied and fast drying, making it suitable for application in the most challenging environments.

MORTARS

Blu**Cem** HB40

HIGH PERFORMANCE REPAIR MORTAR

A state-of-the-art repair mortar designed for the most challenging repair applications. BluCem HB40 has ultra low shrinkage, negligible permeability and is chloride and aluminium free, to create a durable and chemically advanced repair mortar system. The cured mortar is designed to provide compatible strength and elastic modulus for a range of structural repair applications.

Blu**Cem** HB50

RAPID SETTING MARINE HIGH BUILD MORTAR

The reliable choice of repair mortar for challenging environments due to its blend of special sulphate and chloride resistant cements. BluCem HB50 provides fast setting times and high chemical resistance which ensures repairs can be undertaken within tidal zones and other applications that require fast return to service.

Blu**Cem** HB55

SPRAYABLE SHOTCRETE

Selected aggregates are custom graded to create maximum interlocking during dry spraying. This builds depths of several hundred millimetres in one pass, creating a strong and highly resistant structural repair mortar. BluCem HB55 is an economical high-performance product with low electrical resistivity and is suitable for repairs involving cathodic protection.

Blu**Cem** HB60

SPRAYABLE RAPID SETTING CEMENTITIOUS SHOTCRETE

Developed using a blend of carefully selected aggregates combined with sulphate and chloride resistant cements to form the basis of this very dense, high build repair mortar. BluCem HB60 is a high performance repair mortar which performs very well in marine environments. The special cements allow placement during low tide and is ready for submersion several hours later.

RECYCLED INORGANIC POLYMER FOR STRUCTURAL SEWER LININGS

Blu**Cem** ZeoGlass BluCem ZeoGlass had been developed using a blend of carefully selected recycled glass aggregates combined with our cementitious material to form the basis of this very dense, high build inorganic polymer structural sewer mortar. The selected aggregates are custom graded by Bluey Technologies to create maximum interlocking during dry spraying. This builds depths of several hundred millimetres in one pass, creating a strong and highly resistant structural repair mortar. BluCem ZeoGlass is an economical high-performance product with high acid resistance and is suitable for structural repairs in sewers and waste water environments.







GROUTS

Blu**Cem** GP60

CONSTRUCTION GROUT

A Class A grout which will provide initial shrinkage compensation through gaseous expansion during the plastic stage. This allows BluCem GP60 to be volumetrically stable during the initial stages of curing and ensures cracking does not occur due to plastic shrinkage.

Blu**Cem** HS60

FLUID NON-SHRINK CONSTRUCTION GROUT

A highly fluid, volumetrically stable, Class C grout which has both early and long-term shrinkage compensating additives. This allows grout to be placed in critical applications and ensures elimination of shrinkage cracking or settlement.

Blu**Cem** HE80

EARLY STRENGTH GROUT

A fluid grout which has exceptionally high early strength development through its technically advanced cement system. This allows the grout to remain fluid during placement and ensures a high strength and very durable long-term grouting solution.



ULTRA HIGH STRENGTH GROUT

The product has been designed for applications requiring very high ultimate compressive strength. BluCem HS120 is a highly fluid, volumetrically stable, Class C grout which has both early and long-term shrinkage compensating additives. This allows grout to be placed in critical applications and ensures elimination of shrinkage cracking or settlement. BluCem HS120 has been formulated to ensure that expansion is staged to compensate shrinkage both in the plastic and drying states.



PT CABLE GROUT

This product uses the most advanced superplasticisers and suspension agents available to create an exceptionally high performance fluid grout. The additives allow the grout to be applied in critical applications such as post-tension cable grouting and ensures full encapsulation of the duct without bleed, segregation or presence of voids. BluCem HS200 is one of the most advanced aggregate-free fluid grouts available and is the preferred grout for many major road authorities and government utilities. (Also available in additive format BluCem HS200A.)

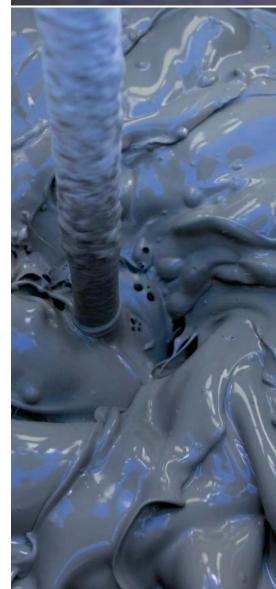


THIXOTROPIC GROUT

A thixotropic grout which will flow under pumping pressure but remains stable under gravity forces through its special blend of cement and fillers. This allows the grout to be applied in top-down application such as overhead rock bolting and ensures full encapsulation of bolts and filling of cavities without voids. The silica fume provides added density and durability for 100-year design life.







Blu**Cem**

EARLY STRENGTH CONCRETE

FAST SET HIGH STRENGTH CONCRETE

Blu**Cem** FSC Base BluCem FSC is a highly durable, CSA based, cementitious powder binder which is blended with aggregates to form an early strength gain concrete with high ultimate strength. BluCem FSC - Base is specifically designed to be applied using volumetric-based continuous mixers. The powder blend has been formulated to eliminate segregation during transport and provide consistent, repeatable results throughout large volume applications. BluCem FSC - Base is designed for use in construction of concrete structures and pavements where only a short window of time is available to complete the works and return the asset to service.

Blu**Cem** FSC Lean mix

FAST SET LOW STRENGTH CONCRETE

BluCem FSC - Lean mix is specifically designed to be applied using volumetric-based continuous mixers. BluCem FSC - Lean mix is designed for use in construction of concrete pavement subbase to reduce the time until the overlying base can be constructed.

MICRO-CONCRETE

DEEP POUR ENGINEERED MICRO CONCRETE

Blu**Cem** LH60 Creates low exothermic heat during hydration through its use of slower reacting cements and specially selected thermally conductive aggregates. This allows BluCem LH60 to remain cool during placement of large pours and also allows the grout to effectively transmit heat during service life. The product is non-shrink and is designed to pump long distances and be self-compacting in form-and-pour remediation activities.

EARLY STRENGTH GROUT WITH AGGREGATE

Blu**Cem** HE80AG A blend of advanced cementitious powder and fine aggregate which has exceptionally high early strength development. This addition of aggregate allows BluCem HE80AG to be batch mixed in agitators for large volume applications including road and runway repairs. BluCem HE80AG has been used on some of Australia's largest and most important infrastructure projects where time is a critical factor.

UNDERWATER GROUTS

HIGH STRENGTH UNDERWATER GROUT

Blu**Cem** HS60 UW An underwater grout that is a highly fluid, volumetrically stable, Class C grout which has both early and long-term shrinkage compensating additives. This allows grout to be placed in critical applications and ensures elimination of shrinkage cracking or settlement where it is not possible to create a dry working environment.

DEEP POUR UNDERWATER MICRO CONCRETE

Blu**Cem** LH60 UW An underwater grout that creates low exothermic heat during hydration through its use of slower reacting cements and specially selected thermally conductive aggregates. This allows BluCem LH60 to remain cool during placement of large pours and also allows the grout to effectively transmit heat during service life. The product is non-shrink and is designed to pump long distances and be self-compacting in form-and-pour remediation activities where it is not possible to create a dry working environment.

FLOORING

RAPID FLOOR SELF-LEVELLING CEMENTITIOUS GROUT

Blu**Cem** SL50 An extremely hard wearing, early strength, self-levelling grout manufactured from specially selected cements, aggregates and additives. This allows BluCem SL50 to be used in hard wearing applications and ensures a durable and long lasting installation. BluCem SL50 is a leader in its class of floor topping materials with its exceptionally high scratch resistance, strength and bond.







Blu**Geo**

GRP

GRP CONTINUOUSLY THREADED SOLID BAR

Blu**Geo** GRP60 BluGeo GRP60 is a Vinyl Ester glass composite bar, based on leading edge Swiss and Japanese design and manufacturing technology. The unique manufacturing process results in an ultra-high shear capacity and thread strength. The product has been designed and extensively tested to International standards for GRP bar manufacture and to provide a 100-year design life. The system includes both GRP and steel nuts and plates to provide the appropriate load capacity for the anchors. The product is easily cut, non-conductive and light weight, reducing site safety risks.

Blu**Geo**

CONTINUOUS DEFORMED GRP REINFORCEMENT BAR

BluGeo P60 is a durable continuously profiled GRP reinforcement bar manufactured from polyester resin and E glass fibres to provide a high strength, inert reinforcement bar for use in design of tunnelling softeyes or for reinforcement of concrete elements subjected to highly corrosive environments. GRP reinforcement is not corrosive and allows concrete cover to be minimised which reduces weight and cost of the concrete elements.

ROCK BOLTS AND ANCHORS

Blu**Geo** LP Rock Bolt

GRP P60

DCP LOW PROFILE STEEL RIGID ANCHOR

BluGeo LP Rock Bolt has a low-profile head and is an extremely durable, high strength bolt, manufactured from Australian Standard steel, and polyethylene sleeve. The simple design facilitates ease of installation. BluGeo LP Rock Bolt is a leader in its class of tunnel bolts with its exceptionally low profile head allowing savings in shotcrete lining thicknesses while eliminating hazards associated with protruding bolt heads.

Blu**Geo** SR Rock Bolt

DCP STEEL RIGID ANCHOR

BluGeo SR Rock Bolt has a traditional head and is an extremely durable, high strength bolt manufactured from Australian Standard steel, and polyethylene sleeve. BluGeo SR Rock Bolt is a leader in its class of tunnel bolts with its traditional head assembly allowing for easy installation with standard bolting equipment.

Blu**Geo** CF Rock Bolt

DCP LOW PROFILE FLEXIBLE CABLE ANCHOR

BluGeo CF Rock Bolt has a low-profile head and is an extremely durable, high strength cable bolt manufactured from Australian Standard steel, and polyethylene sleeve. BluGeo CF Rock Bolt is a leader in its class of cable bolts with its low-profile head allowing savings in shotcrete lining thicknesses while eliminating hazards associated with protruding bolt heads.

Blu**Geo** S-Type Centraliser

ANCHOR CENTRALISER

BluGeo S-Type Centraliser is an injection moulded, high strength plastic product designed for quick installation on ground anchor bars to ensure central location in the drilled hole. The product has been designed to facilitate the location of the grout tube along the bar.

Blu**Geo** SW-RCD

REMOVABLE MULTI STRAND GROUND ANCHOR

BluGeo SW-RCD anchor is a load distributive compression type removable anchor that offers a complete solution where anchorage systems are required to be removed once they become redundant. BluGeo SW-RCD is a temporary ground anchor (working life up to 2 years) with the strands being easily removed at the end of the working life.

Blu**Geo** SW-TTF

MULTI STRAND TEMPORARY GROUND ANCHOR

BluGeo SW-TTF is a temporary ground anchor (working life up to 2 years) with the strands not able to be removed. The strands have no corrosion protection.

Blu**Geo** SW-PTF

MULTI STRAND PERMANANT GROUND ANCHOR

BluGeo SW-PTF is a permanant ground anchor with a design service life (equivalent to that of the structure) with the strands not able to be removed. The strands have high level corrosion protection.







Blu**Rez**

POLYURETHANE INJECTION RESINS

HYDROPHILIC POLYURETHANE INJECTION RESIN

Blu**Rez** CSI50 BluRez CSI50 is a single component polyurethane injection resin which can be easily injected in complex environments where a quick sealing solution is required. The specially formulated resin reacts with water to form a semi-solid hydrophilic product which will later expand in contact with water to create a pressure resisting seal. Requiring only simple application equipment for installation as a single component product, the BluRez CSI50 is ideal for difficult access environments including tunnels, sewers and basements. With some basic instruction, BluRez CSI50 can be installed by non-specialised operators allowing installation on site by the main contractor. BluRez CSI50 provides an easy and cost effective solution for all damp cracks requiring fast and easy sealing on site.

WATER STOPPING POLYURETHANE RESIN

Blu**Rez** CSW BluRez CSW is designed for sealing large water inflows under high pressure. Its fast reaction with water, rapid expansion and ability to form a pressure resisting structure within minutes will ensure that work can progress quickly. BluRez CSW is suitable for sealing and consolidating rock, soils, concrete, steel and timber structures. The closed cell foam structure provides long-term durability against sustained high pressure water heads. Injected as a single component, the product only requires simple equipment for installation making it a quick and easy solution for tunnels, basements and most underground structures. BluRez CSW is a reliable choice for sealing water flow or consolidating soils and rock in an underground environment.

EPOXY RESINS

HIGH PENETRATION EPOXY RESIN

Blu**Rez** Epoxy III BluRez III has been developed to offer an unmatched combination of ultralow mixed viscosity, good work time and high full-cure mechanical strengths. This low viscosity and low surface tension has been achieved without the incorporation of any solvents, creating one of the best penetrating 100% solid resin systems available. BluRez III has been developed to offer fast injection application and specially developed to bond to both dry and damp surfaces. Extremely high structural properties including compressive strength, tensile strength and bond make BluRez III a reliable choice for challenging, high performance project applications.

LOW VISCOSITY EPOXY INJECTION RESIN

Blu**Rez** Epoxy 222VL BluRez 222VL has been developed as an easy to use and cost effective injection resin with good work time and high full-cure mechanical strength. BluRez 222VL is solvent-free ensuring no shrinkage and safe use. It allows fast injection application and has excellent surface wetting making it also suitable in a range of other applications including surface priming. BluRez 222VL comes in packaging suitable for large-scale applications making it ideal for a range of civil engineering applications.

HIGH STRENGTH EPOXY RESIN

Blu**Rez** Epoxy 225 BluRez 225 Construction Grade Epoxy Binder is a high strength epoxy system which adheres tenaciously to all forms of prepared concrete and steel surfaces. It can be easily extended on site with suitable aggregates to provide different application characteristics and greater economy. Mortars and concretes prepared using BluRez 225 and suitable aggregates will demonstrate significantly greater tensile and compressive strengths than Portland cement concrete and demonstrate much higher chemical resistance. BluRez 225 has been formulated for use in a range of civil engineering, building and construction applications requiring a high performance, easy-to-use epoxy binder.







EPOXY GROUT

PRECISION EPOXY GROUT

Blu**Rez** Epoxy 480 BluRez 480 Precision Epoxy Grout is a high strength, non-shrink, epoxy-based grouting system offering ease of use and superior mechanical properties. BluRez 480 may be extended on site with graded aggregate for projects requiring deep pours or application during abnormally hot weather. The use of a high-performance epoxy grout like BluRez 480 will maximise the effective bearing area under the widest variety of machinery and equipment support applications. The system demonstrates faster strength development and higher mechanical properties than cement-based grouts including superior dynamic load response. BluRez Epoxy 480 is also available with extended work time and low exotherm (480UT), which is particularly suitable for large pours where long distances under narrow and restricted areas are required. BluRez 480 is suitable for a range of civil engineering applications.

EPOXY SEALANTS AND ADHESIVES

HIGH BOND STRUCTURAL ADHESIVE EPOXY

Blu**Rez** Epoxy 575 BluRez 575 Structural Adhesive System is a specially formulated gap-filling paste adhesive. This easy-to-use, two-part epoxy product hardens after mixing with excellent properties that are ideally suited for many building and construction site applications. BluRez 575 contains Kevlar® reinforcement, providing high creep resistance and excellent long-term durability. BluRez 575 will bond to damp surfaces and maintain its bond and structural integrity in a submerged environment. Due to its robust nature, durability in harsh environments and wide range of applications, BluRez 575 is a reliable choice for civil engineering projects.

SEGMENTAL CONSTRUCTION ADHESIVE

Blu**Rez** Epoxy 575CG BluRez 575CG Structural Adhesive System is a specially formulated non-sag, gap-filling paste adhesive. This easy-to-use, two-part epoxy product hardens after mixing with excellent properties that are ideally suited to sealing vertical and overhead surfaces including precast match castings on buildings and bridges. BluRez 575CG contains Kevlar® reinforcement, providing high creep resistance and excellent long-term durability. BluRez 575CG will bond to damp surfaces and maintain its bond and structural integrity in a submerged environment. Due to its robust nature, durability in harsh environments and wide range of applications, BluRez 575CG is a reliable choice for civil engineering projects.







Blu**Seal**

MEMBRANES

VLDPE FLEXIBLE SHEET MEMBRANE

Blu**Seal**VLDPE
Tunnel Liner

BluSeal VLDPE is supplied and installed as a fully sealed and welded robust membrane system. The installed system includes proprietary system provisions for service penetrations, through fixings and terminations. The liner is suitable for a range of underground structures, providing the most robust and reliable solution available for concrete protection and water infiltration management. Under the supervision of Bluey Engineers and trained installers, BluSeal VLDPE can be applied to tunnels, basements and other structures as either a tanked or drained lining system. VLDPE allows extrusion welding over hand welds in complex areas, providing additional surety around structures with complex geometry. BluSeal VLDPE is designed and installed in accordance with International standards. BluSeal VLDPE is the most reliable choice for all civil engineering underground structures.

PVC FLEXIBLE SHEET MEMBRANE

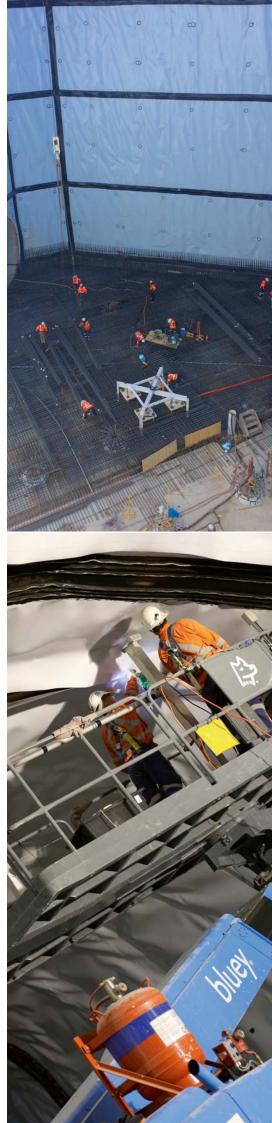
Blu**Seal** PVC Tunnel Liner BluSeal PVC is supplied and installed as a fully sealed and welded robust membrane system. The installed system includes proprietary system provisions for service penetrations, through fixings and terminations. The liner is suitable for a range of underground structures, providing the most robust and reliable solution available for concrete protection and water infiltration management. Under the supervision of Bluey Engineers and trained installers, BluSeal PVC can be applied to tunnels, basements and other structures as either a tanked or drained lining system. PVC allows easy hand welding in complex areas, providing cost savings on installation around structures with complex geometry. BluSeal PVC is designed and installed in accordance with International standards. BluSeal PVC is the most reliable choice for all civil engineering underground structures.

HDPE CONCRETE PROTECTION MEMBRANE

Blu**Seal** Anchor Knob Sheet BluSeal Anchor Knob Sheet (AKS) is a premier concrete protection lining solution. The sheet, manufactured from the highest quality HDPE, is locked into the surface of concrete during construction by an integrated anchoring system. Being installed during the concrete placement process eliminates the requirement for concrete curing and preparation prior to installation saving time and eliminating potential quality control issues. The integrated knobs provide very high mechanical anchoring ensuring that vapour pressures and dampness from the underground environment do not compromise bonding over the lifetime of the structure. Under the supervision of Bluey Engineers and trained installers, BluSeal AKS can be applied to sewers, chemical tanks and other structures as either a tanked or drained lining system. The AKS liner can be applied to complex geometrical surfaces as a continuous, fully welded system suitable for the challenge of civil engineering environments.

CEMENT POLYMER MEMBRANE

Blu**Seal** TF05 BluSeal TF05 is a robust and flexible membrane system with a proven track record in underground applications. The installed system has been specifically designed to provide a combination of benefits including water infiltration management, strata support and aesthetic final lining. The spray liner can be applied between shotcrete layers or otherwise on the internal surface. Its high tensile strength has the added advantage of being able to offer strata support, while accommodating the stresses associated with structural movement and providing a barrier to moisture degradation. Under the supervision of Bluey Engineers and trained installers, BluSeal TF05 can be applied to tunnels, basements and other structures as either a tanked or drained lining system. The spray application allows easy application in complex areas providing cost savings on installation around structures with complex geometry. BluSeal TF05 is designed and installed in accordance with International Standards.



WATERSTOPS AND SEALING SYSTEMS

Blu**Seal** Silane Cream

THIXOTROPIC CONCRETE WATER REPELLENT

BluSeal Silane Cream is a unique thixotropic concrete penetrating agent. The product has been carefully formulated to deeply permeate into concrete pores and deposit active silane beyond the concrete surface. The treated concrete will have much greater resistance to chloride and water penetration.

Blu**Seal** URG Waterstop

PVC UNIVERSAL REAR GUARD WATERSTOP

BluSeal URG Waterstops are extruded from specially formulated PVC to meet International Standards. The product has high flexibility and an ability to withstand cyclical loadings expected within movement joints. The range of widths and rib configurations provides specifiers with options which will suit a range of waterproofing solutions. BluSeal URG Waterstop has the structural integrity and the long-term durability to make it suitable for critical infrastructure works in a range of application environments.

Blu**Seal** UCG Waterstop

PVC UNIVERSAL CENTRE GUARD WATERSTOP

BluSeal UCG Waterstops are extruded from specially formulated PVC to meet International Standards. The product has high flexibility and an ability to withstand cyclical loadings expected within movement joints. The range of widths and rib configurations provides specifiers with options which will suit a range of waterproofing solutions. BluSeal UCG Waterstop has the structural integrity and the long-term durability to make it suitable for critical infrastructure works in a range of application environments.

Blu**Seal** JS50

EPDM JOINT SEALING MEMBRANE

BluSeal JS50 is an EPDM bonded joint sealing system which can be applied to high movement concrete joints. BluSeal JS50 is designed to be used in conjunction with BluSeal AD50 to create an ultra high movement capacity joint seal for fixing between concrete elements where high movements are expected. Due to its very high elasticity, BluSeal JS50 is particularly suitable for joints where large thermal, geotechnical and loading deformations may occur between structural elements. Due to its robust nature and ability to be applied in damp environments, BluSeal JS50 is particularly suitable for the most challenging civil engineering applications.

Blu**Seal** AD50

SILANE-MODIFIED POLYMER ADHESIVE

BluSeal AD50 is a silane-modified polymer which cures when exposed to the atmosphere to form a flexible, high bond compound. BluSeal AD50 is designed to be used in conjunction with BluSeal JS50 to create an ultra-high movement capacity joint seal for fixing between concrete elements where high movements are expected. Due to its excellent bonding capabilities, even in damp environments, BluSeal AD50 is particularly suitable for challenging civil engineering applications.

Blu**Seal**

HYDROPHILIC BUTYL WATERSTOP SEAL

BluSeal Superstop 47B is manufactured utilising a specialised mixing process which encapsulates hydrophilic materials into a Butyl base creating a controlled, moisture activated seal. This allows the product to be used in major civil engineering project applications and ensures a durable and long lasting installation. BluSeal Superstop 47B has the structural integrity and the long-term durability to make it suitable for critical infrastructure works. BluSeal Superstop 47B does not expand prematurely from the wet weather due to its unique expansion control system, helping minimise any pre-expansion when installed in fresh concrete.

Superstop 47B

HYDROPHILIC GUN GRADE PU WATERSTOP

Blu**Seal** Leakmaster BluSeal Leakmaster is manufactured utilising a specialised single component Polyurethane water swelling resins. This allows the product to be used in major civil engineering project applications and ensures a durable and long lasting installation. BluSeal Leakmaster has the structural integrity and the long-term durability to make it suitable for critical infrastructure works. BluSeal Leakmaster unique properties allows it to be applied where conventional solid sealants cannot be easily applied. After curing, BluSeal Leakmaster has excellent physical and water sealing properties.









Bluey deliver...

- Products developed for civil engineering
- Product technical knowledge
- Site application knowhow
- A collaborative approach
- Economical solutions for large projects

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