

Knowledge + Knowhow

bluey®

Tunnels and  
underground



Transport  
infrastructure

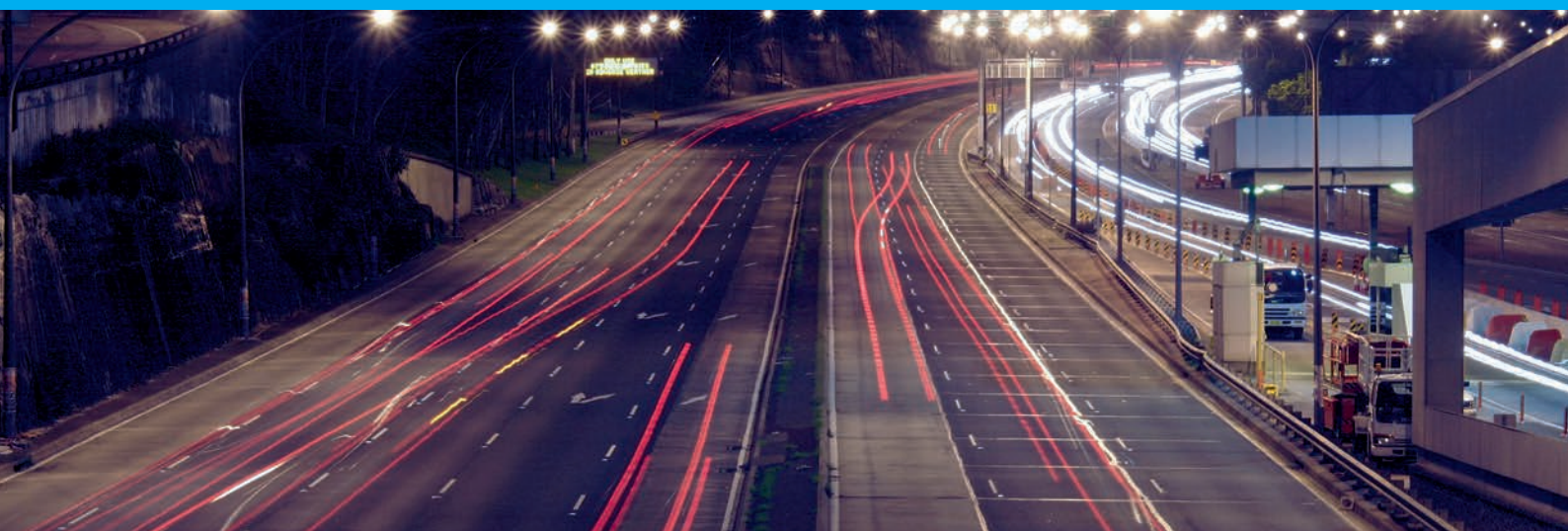
Utilities  
infrastructure



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 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



## Tunnels and underground

Tunnels, basements, mining



## Transport infrastructure

Roads, rail, bridges, wharves, airports



## Utilities infrastructure

Water, wastewater, power, telecommunications



## PRIMER

bluCem  
API0

### ACRYLIC CONCRETE PRIMER

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.

## MORTARS

bluCem  
HB30

### LIGHT WEIGHT HIGH BUILD MORTAR

The use of special polymers and light weight fillers give bluCem HB30 excellent finishing properties. This allows a long pot-life and malleable consistency of the mortar which ensures that the final finish is accurate and matching existing surfaces.

bluCem  
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.

bluCem  
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 requiring fast return to service.

bluCem  
HB55

### SPRAYABLE SHOTCRETE

Selected aggregates are custom graded to create maximum interlocking during dry spraying to build 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.

bluCem  
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 to be ready for submersion several hours later.

bluCem  
GeoSpray™

### HIGH PERFORMANCE SPRAY APPLIED GEOPOLYMER

bluCem GeoSpray™ is a geopolymer mortar. Geopolymer mortars are created by activating pozzolanic waste materials such as fumed silica, blast furnace slag and flyash. These products are usually seen as waste materials which are byproducts of the steel and power generation industries. The activation of these materials creates a very strong, chemical resistant, rock-like product which can be used for structural shotcrete linings and other industrial applications. The product is ideal for use as a corrosion protection lining in remediation of reinforced concrete sewerage structures.





## GROUTS

bluCem  
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.

bluCem  
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.

bluCem  
HE80AG

### EARLY STRENGTH GROUT WITH AGGREGATE

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.

bluCem  
HS200

### PT CABLE GROUT

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.

bluCem  
HS200A

### PT CABLE GROUT ADDITIVE

A one component powder additive which requires the addition of cement powder and water to form an ultra flow cementitious grout. The additive allows 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  
HS400

### THIXOTROPIC GROUT

A thixotropic grout which will flow under pumping pressure but remain 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 10% silica fume provides added density and durability for 100 year design life.

bluCem  
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.

bluCem  
MF12

### MICROFINE CEMENT

The product will penetrate into the finest of cracks and soils due to its small particle size and very fluid characteristics. Special suspension additives and superplasticisers can be added during onsite mixing to improve flow and decrease segregation during injection. bluCem MF12 is a reliable microfine cement that is manufactured using custom technology which provides a uniquely strong and durable microfine cement product.



## MICRO-CONCRETE

bluCem  
LH60

### DEEP POUR ENGINEERED MICRO CONCRETE

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 to be self compacting in form-and-pour remediation activities.

bluCem  
50-10

### HIGH STRENGTH CONCRETE

A prepackaged concrete mix which is designed to be used where ready-mix concrete may not be a practical option. bluCem 50-10 comes in a variety of bag sizing combinations which will cater for all types of projects. Bulk-bags are easily transported and loaded into tumble mixers no matter where the application. This includes off-shore projects and projects in remote regional locations. bluCem 50-10 is a cost effective and very high quality alternative which is easy to mix and flexible in its packaging sizes.

bluCem  
80-10

### EARLY STRENGTH CONCRETE

A multi component cement powder and selected aggregate blend which requires only the addition of water to form a rapid strength concrete. bluCem 80-10 will cure to form a structurally supporting element in two hours using special cement systems suitable for permanent structures. bluCem 80-10 is a pourable product suitable for civil engineering applications. bluCem 80-10 incorporates cement and a selected aggregate blend to form a concrete which is workable, low drying shrinkage, durable concrete.

## UNDERWATER GROUTS

bluCem  
HS60 UW

### HIGH STRENGTH UNDERWATER GROUT

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.

bluCem  
LH60 UW

### DEEP POUR UNDERWATER MICRO CONCRETE

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 to be self compacting in form-and-pour remediation activities where it is not possible to create a dry working environment.

## FLOORING

bluCem  
RF20

### RAPID FLOOR SELF-LEVELLING CEMENTITIOUS GROUT

An extremely hard wearing, early strength, self-levelling grout manufactured from specially selected cements, aggregates and additives. This allows bluCem RF20 to be used in hard wearing applications and ensures a durable and long lasting installation. bluCem RF20 is a leader in its class of floor topping materials with its exceptionally high scratch resistance, strength and bond.





## GRP

bluGeo  
GRP60

### GRP CONTINUOUSLY THREADED SOLID BAR

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 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. The redundancy of corrosion protection sheathing allows the bar to be designed for use in temporary and permanent soil nail and passive rock anchor applications, with smaller diameter drilled holes, at a significantly lower installed cost.

## ROCK BOLTS AND ANCHORS

bluGeo  
LP Rock Bolt

### 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. This allows the product to be used in major civil engineering project applications and ensures a durable and long lasting 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.

bluGeo  
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. This allows the product to be used in major civil engineering project applications and ensures a durable and long lasting installation. 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.

bluGeo  
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. This allows the product to be used in major civil engineering project applications and ensures a durable and long lasting installation. 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.

bluGeo  
S-Type  
Centraliser

### ANCHOR CENTRALISER

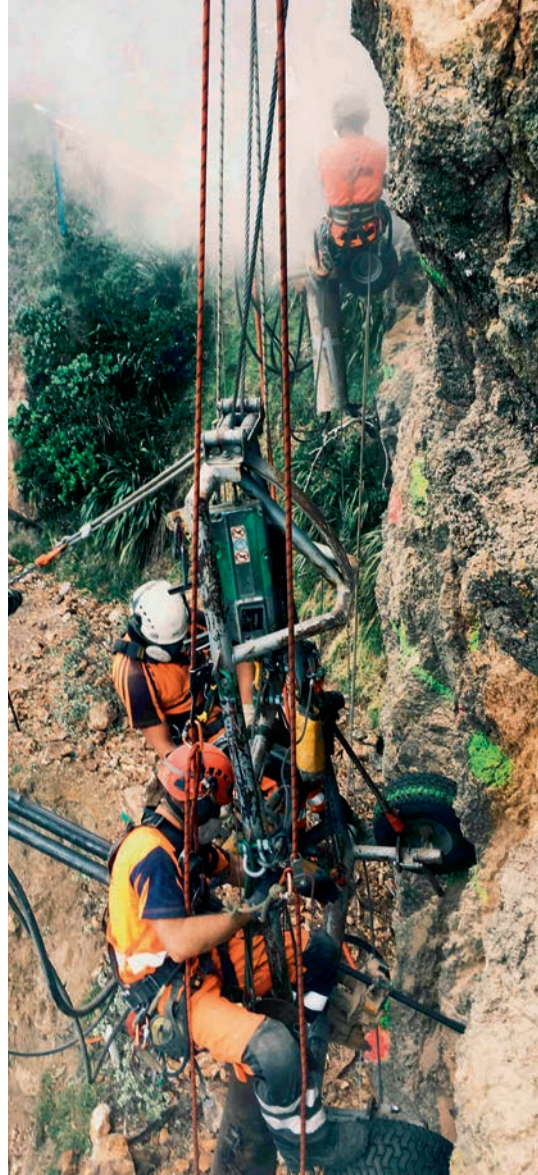
bluGeo S-Type Centraliser is an injection moulded, high strength plastic product designed for quick installation on ground anchor bars to ensure central location in the drilled hole. The product has been designed to facilitate the location of the grout tube along the bar. This centraliser is robust and comes in several sizes to accommodate various bar diameters and drilled hole sizes.

## THIN SPRAY LINER

bluGeo  
GeoRoc

### HIGH PERFORMANCE GEOPOLYMER MORTAR

bluGeo GeoRoc™ is a geopolymer mortar. Geopolymer mortars are created by activating pozzolanic waste materials such as fumed silica, blast furnace slag and flyash. These products are usually seen as waste materials which are by-products of the steel and power generation industries. The activation of these materials creates a very strong, chemical resistant, rock-like product which can be used for structural shotcrete linings and other industrial applications. The product is ideal for providing an anti-weathering barrier to rock excavations and road or rail cuttings.





## POLYURETHANE INJECTION RESINS

### bluRez CS150

#### HYDROPHILIC POLYURETHANE INJECTION RESIN

bluRez CS150 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 CS150 is ideal for difficult access environments including tunnels, sewers and basements. With some basic instruction, bluRez CS150 can be installed by non-specialised operators allowing installation on site by the main contractor. bluRez CS150 provides an easy and cost effective solution for all damp cracks requiring fast and easy sealing on site.

### bluRez CSW

#### WATER STOPPING POLYURETHANE RESIN

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

### bluRez Epoxy 111

#### HIGH PENETRATION EPOXY RESIN

bluRez 111 has been developed to offer an unmatched combination of ultra-low 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 111 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 111 a reliable choice for challenging, high performance project applications.

### bluRez Epoxy 222VL

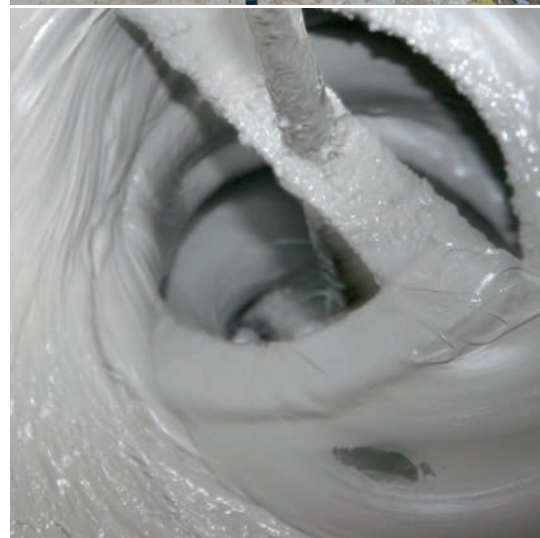
#### LOW VISCOSITY EPOXY INJECTION RESIN

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.

### bluRez Epoxy 225

#### HIGH STRENGTH EPOXY RESIN

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

### bluRez Epoxy 480

#### PRECISION EPOXY GROUT

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 is required. bluRez 480 is suitable for a range of civil engineering applications



## EPOXY SEALANTS AND ADHESIVES

### bluRez Epoxy 570

#### TRAFFICABLE EPOXY JOINT SEALANT

bluRez 570 Self-Levelling, Traffic Grade Sealant is a low viscosity semi-rigid, hybrid epoxy system which is designed to protect the edges of internal industrial slab joints from damage caused by the passage of hard-wheeled vehicles. It combines excellent durability and suitable movement capacity when installed correctly. Professionally installed, bluRez 570 eliminates joint spalling and dusting, reduces materials handling equipment operating noise and maintenance costs and provides a durable joint seal in a range of difficult operating environments including roads, pavements and slabs.



### bluRez Epoxy 575

#### HIGH BOND STRUCTURAL ADHESIVE EPOXY

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 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 will 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.

### bluRez Epoxy 575CG

#### SEGMENTAL CONSTRUCTION ADHESIVE

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 ideally suited for 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 surface and will 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.

## PLUG

### bluSeal MP

#### NON-HAZARDOUS MOULDING PUTTY

bluSeal MP is a one component moulding putty that is supplied ready to use as a temporary sealing compound. The product has been designed as an easily moulded plug to fit any shape for sealing of gaps and temporary plugging applications. Due to its high adhesion and anti-dispersant properties, it is suitable for a wide range of practical construction applications. It may be used for temporary sealing of formwork and plugging of groundwater ingress in many civil engineering applications where short term blocking of liquids or grout is required.

## MEMBRANES AND LINERS

### bluSeal VLDPE Tunnel Liner

#### VLDPE FLEXIBLE SHEET MEMBRANE

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.

### bluSeal PVC Tunnel Liner

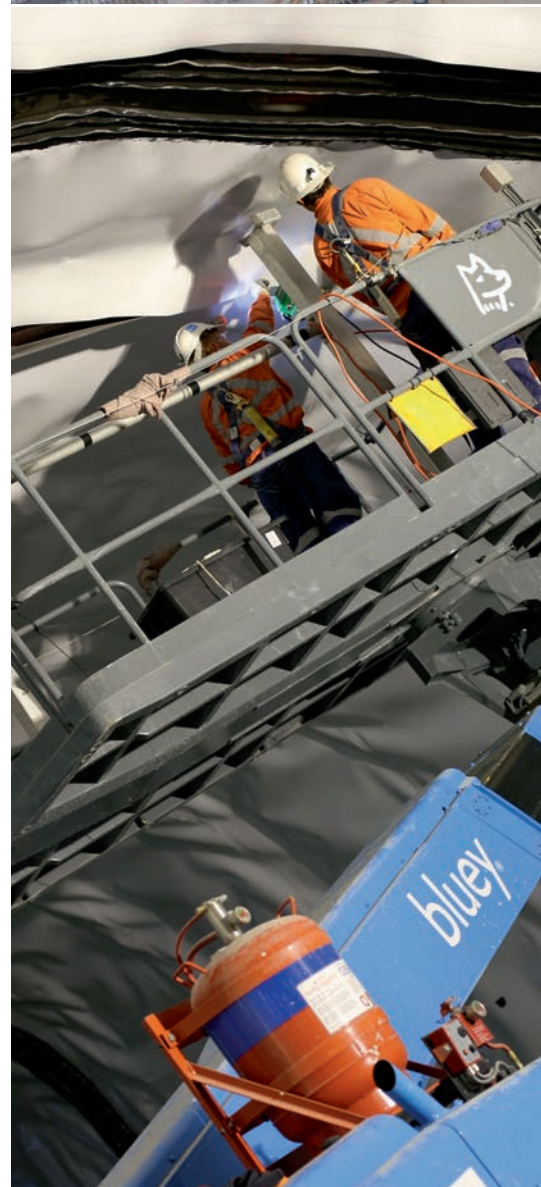
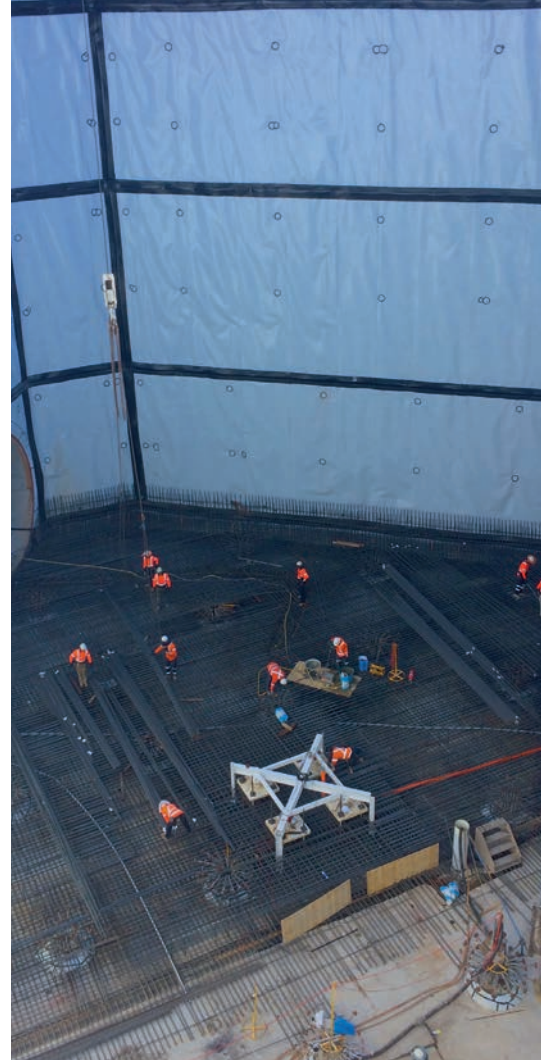
#### PVC FLEXIBLE SHEET MEMBRANE

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.

### bluSeal Containment Liner

#### HDPE SHEET MEMBRANE

bluSeal Containment Liner is supplied and installed as a fully sealed and welded robust membrane system. The liner is suitable for a range of civil engineering structures providing a robust and reliable solution available for water infiltration management and sealing. Under the supervision of bluey Engineers and trained installers, bluSeal Containment Liner can be applied dams, canals and bunds as either a tanked or drained lining system. HDPE allows extrusion welding over hand welds in complex areas providing additional surety around structures with complex geometry. bluSeal Containment Liner is designed and installed in accordance with International standards to provide the most reliable choice for civil engineering liquid containment structures.





## MEMBRANES AND LINERS

### bluSeal Anchor Knob Sheet

#### HDPE CONCRETE PROTECTION MEMBRANE

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 bond 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.

### bluSeal 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.

### bluSeal AD50

#### SILICONE-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.



## bluey deliver...

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

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