MASTER® BUILDERS SOLUTIONS

bluey

Transport Solutions

BLUEY TECHNOLOGIES

SPECIALISED ENGINEERED PRODUCTS BACKED BY KNOWLEDGE + KNOWHOW

Bluey Technologies is a supplier of engineered construction products for major civil engineering infrastructure works. 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 have a committed and agile partner by your side throughout the entire project.

While we like to think outside the box, our continued focus is always to ensure the job gets done to the highest standards, not only making your life easier but lowering the whole-of-life cost of your project.

Transport Solutions
ROADS AND PAVEMENTS

PAVEMENT REPLACEMENT	
BluCem FSC	FAST SET CONCRETE
UNDERSLAB GROUTING	
BluCem HE80	EARLY STRENGTH GROUT
BluCem HS200	PT CABLE GROUT
ELECTRICAL UNDERBORE GROUTING	
BluCem LH60	DEEP POUR ENGINEERED GROUT
BluCem EA55RM	LOW THERMAL RESISTIVITY CEMENTITIOUS GROUT
JOINT SEALERS	
BluSeal JPress	CONCRETE JOINT SEALING PROFILE
CRACK INDUCERS/JOINT FORMERS	
BluSeal JForm	CRACK INDUCER / JOINT FORMER

Transport Solutions
ROADS AND PAVEMENTS

From highways to roads, car parks and footpaths, Bluey Technologies combines over two decades of project experience, with a range of innovative, Government authority approved products.

PAVEMENT REPLACEMENT

BluCem FSC – Fast Set Concrete takes pavement repair and replacement works to the next level. Working with specialised mobile batching units and Tier 1 contractors including NA Group and Holcim, BluCem FSC, was recently approved by Transport NSW as a time-critical pavement replacement on NSW roads.

BluCem FSC – Fast Set Concrete

- 100 year design life
- Assets returned to service in under 3 hours
- No surface cracking
- Suitable for all Australian conditions
- Extensive 1000+ day testing
- Available on demand

UNDERSLAB GROUTING

Roads and pavements become weak and crack due to changes in the road's application, drought, flooding or even just the passage of time. Whatever the case, these assets often require remediation. Underslab grouting is an easy and reliable method to rehabilitate slabs by drilling into the subbase and filling the voids, rather than excavating and replacing the entire affected area.

- Range of highly flowable grouts
- Fast set or extended pot life grouts
- 10 -15 times more penetrative than GP cement
- Frequently specified by Road Authorities
- Bulk batching and supply (ready-mix)

Transport Solutions
ROADS AND PAVEMENTS

SLOPE STABILISATION

When steep terrain is exposed to the elements, the effect on roads and pavements over time is often unpredictable.

With that in mind, in 2011 Bluey launched a range of innovative GRP ground anchors and soil nails. These products help ensure the stability of slopes, embankments, unstable ground and bridge piers.

BluGeo GRP products include features, such as:

- +100 year design life
- High tensile and shear strengths
- Easy to place and secure
- 25% of the weight of comparable steel products
- Easy to handle and transport, further reducing costs and installation times

ELECTRICAL UNDERBORE GROUTING

Electrical underbore grouting aids in the dissipation of heat from high voltage electrical conduits, increasing the cable's insulation properties and allowing additional voltage loads to be placed on cables. These results create superior cable ratings and a reduction in long term associated costs.

BluCem EA55RM – Low Thermal Resistivity Cementitious Grout

- Specifically designed to produce low heat during hydration
- Thermal resistivity (TR) of 0.69km-w
- Low exothermic reaction temperatures
- Suitable for large, deep pours
- No heat damage to conduits during curing
- Ready mix supply options

Transport Solutions
ROADS AND PAVEMENTS

JOINT SEALERS

Contraction and expansion joints on roads and pavements are regularly exposed to extreme weights, vibration, movement and temperatures. To be reliable, a joint sealer must be able to not only tolerate these conditions, but must also be able to provide ongoing resistance against them.

BluSeal JPress is a high-performance elastomeric profile, suitable for sealing concrete joints.

BluSeal JPress – Concrete Joint Sealing Profile

- Delivers a fast and reliable joint sealing solution
- Santoprene™ thermoplastic strip profile
- Installed quickly and easily in concrete joints
- No on-site priming or joint preparation
- Innovative 'push-in' design creates a friction seal
- Environmentally friendly, eliminating the need for excess chemicals, packaging and clean-up

CRACK INDUCERS/JOINT FORMERS

Crack inducers are used in concrete slabs to encourage controlled cracks at specific locations throughout continuously poured concrete pavements.

BluSeal JForm is manufactured for controlled crack inducement and joint forming in large concrete paved areas such as parking aprons. BluSeal JForm is made from recycled, high impact PVC material and incorporates a reusable aluminium joint former, eliminating the need for saw cutting joints.

BluSeal JForm – Crack Inducer/Joint Former

- Prevents concrete chipping
- Reduces the risk of random cracking in concrete
- Diamond tip sawing process eliminated
- Use of bottom crack inducer system eliminated
- Labour cost savings

Transport Solutions
AIRPORTS

LIGHTING UPGRADES	
BluCem HE80	EARLY STRENGTH GROUT
BluCem HE80AG	EARLY STRENGTH GROUT WITH AGGREGATE
BluCem LH60	DEEP POUR ENGINEERED GROUT
PAVEMENT REPLACEMENTS	
BluCem FSC	FAST SET CONCRETE
UNDERSLAB GROUTING	
BluCem HE80	EARLY STRENGTH GROUT
ELECTRICAL UNDERBORE GROUTING	
BluCem LH60	DEEP POUR ENGINEERED GROUT
JOINT SEALERS	
BluSeal JForm	CRACK INDUCER/JOINT FORMER
NON-CONDUCTIVE REINFORCEMENT	
BluGeo GRP Reo	CONTINUOUS DEFORMED GRP REINFORCEMENT BAR

Transport Solutions
AIRPORTS

As populations continue to grow, more demand and stress is placed on airports, increasing the need for airport rehabilitation and upgrades.

LIGHTING UPGRADES

Our high early strength grout range has assisted the installation of lighting upgrades during curfew hours for almost 20 years. Bluey Engineers assist in product specification, project planning and on-site installation to ensure each project is completed in a safe, efficient and environmentally acceptable manner.

- Extensive non-shrink grout range
- Fast setting and rapid installation (required for nightworks)
- High early strengths, able to take loading from a plane within two hours
- Highly flowable – pumps into small voids and cavities
- No late formation ettringite – 120 year design life
- Extensive batch testing – reliable set times and strength gain

PAVEMENT REPLACEMENTS

With the current aeroplane curfew for international airports from 11pm to 6am, we understand the critical importance of tight time schedules. Bluey works with specialist contractors across Australia, to place runway slabs and return runways to service within strict timelines.

Our experience with BluCem FSC – Fast Set Concrete has given us the insight required to deliver time-critical runway projects successfully.

BluCem FSC – Fast Set Concrete

- High flexural and compressive strengths
- Computerised mixed design and calibration
- Assets returned to service in under 3 hours
- Adjustable workability – BluCem AddSlow
- Adjustable finish times – BluCem AddFlow
- Controlled application in summer and winter

Transport Solutions
AIRPORTS

UNDERSLAB GROUTING

Airport slabs weaken and crack due to excessive weights from planes, sub-grade failure or even just the passage of time. Whatever the case, these critical assets require remediation.

When it comes to rehabilitating airport slabs, underslab grouting can provide a reliable and cost-effective alternative to excavating and replacing the entire affected area – delivering the required result in a fraction of the time.

- Range of highly flowable grouts
- Fast set or extended pot life grouts
- 10 – 15 times more penetrative than GP cement
- Bulk batching and supply (ready mix)

ELECTRICAL UNDERBORE GROUTING

Electrical underbore grouting aids in the dissipation of heat from high voltage electrical conduits, increasing the cable's insulation properties and allowing additional voltage loads to be placed on cables. These results create superior cable ratings and a reduction in long term costs.

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- Thermal resistivity (TR) of 0.69km-w and
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- Suitable for large, deep pours
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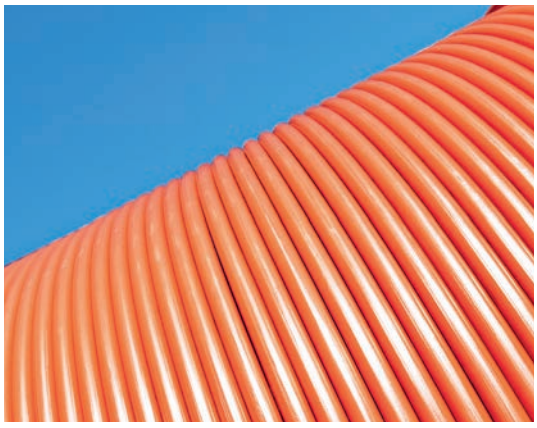


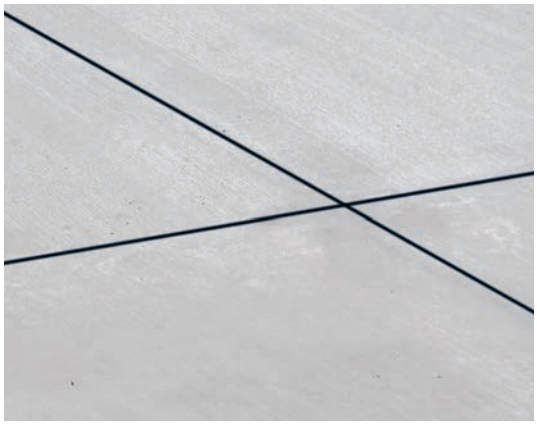
Transport Solutions
AIRPORTS

JOINT SEALERS

Contraction and expansion joints on roads and pavements are regularly exposed to extreme weights, vibration, movement and temperatures. For reliability, a joint sealer must be able to tolerate these conditions and provide ongoing resistance against them.

BluSeal JPress – Concrete Joint Sealing Profile

- Delivers a fast and reliable joint sealing solution
- Santoprene™ thermoplastic strip profile
- Installed quickly and easily in concrete joints
- No on-site priming or joint preparation
- Innovative 'push-in' design creates a friction seal
- Environmentally friendly, eliminating the need for excess chemicals, packaging and clean-up



NON-CONDUCTIVE REINFORCEMENT

Safety zones are a critical design consideration for new and existing airports. Without suitable measures in place, metal elements can become live, with dangerously high voltages causing sparks and potential explosions in the volatile airport environments.

BluGeo GRP Reo – Concrete Reinforcement

- Ideal for use in airport environments
- Manufactured from polyester resin and E glass fibres
- Lightweight and easy to install
- High tensile and shear strengths
- Non-corrosive and acid resistant
- Cost effective

Transport Solutions
BRIDGES

STRUCTURAL REPAIRS	
BluCem HB55	SPRAYABLE SHOTCRETE
BluCem HE80	EARLY STRENGTH GROUT
BluCem HE80AG	EARLY STRENGTH GROUT WITH AGGREGATE
BluCem HS60	FLUID NON-SHRINK CONSTRUCTION GROUT
BluCem FSC	FAST SET CONCRETE
EXPANSION JOINT GROUTING	
BluCem HE80AG	EARLY STRENGTH GROUT WITH AGGREGATE
BRIDGE BEARING GROUTING	
BluCem HE80AG	EARLY STRENGTH GROUT WITH AGGREGATE
BluCem LH60	DEEP POUR ENGINEERED GROUT
VOID GROUTING	
BluCem HS200	PT CABLE GROUT
POST-TENSION GROUTING	
BluCem HS200	PT CABLE GROUT
TIME CRITICAL GROUTING	
BluCem HE80	EARLY STRENGTH GROUT
BluCem HE80AG	EARLY STRENGTH GROUT WITH AGGREGATE
SEGMENT MATCH CASTING	
BluRez Epoxy 575	HIGH BOND STRUCTURAL ADHESIVE EPOXY
BluRez Epoxy 575GC	SEGMENTAL CONSTRUCTION ADHESIVE
GROUND ANCHORING	
BluGeo GRP60	GRP CONTINUOUSLY THREADED SOLID BAR
BluGeo SW-PTF	MULTI-STRAND PERMANENT GROUND ANCHOR

Transport Solutions
BRIDGES

Bridges are the great civil engineering shortcut. Why go around, when you can go straight? As an industry leader, Bluey provides innovative bridge construction, remediation and upgrade solutions.

STRUCTURAL REPAIRS

An ever-increasing global population means that there is consistent pressure to expand the capacity of existing infrastructure. Rather than build new bridges, asset owners are increasingly choosing to upgrade existing bridges – increasing capacity, widening bridges and adding lanes.

Our range of fast setting grouts, mortars and concrete solve a vital part of this complex problem.

- Wide range of mortars, shotcretes, grouts and concrete
- +100 year design life products
- Extensive batch testing
- Reliable set times and strength gains
- No late formation ettringite
- Easy mixing – saves time on application
- Fast setting – suitable for time-critical applications

EXPANSION JOINT GROUTING

Bridge expansion joints are designed to reduce forces caused by external loads, shrinkage and temperature variations. They allow traffic to run continuously, regardless of the conditions of the day.

BluCem HE80 and HE80AG are often specified by road authorities to secure steel movement joints that traverse the bridge deck.

- +100 year design life
- Ultra rapid strength gain
- Suitable for deeper pours
- Non-shrink
- Highly flowable – Easy to pump into tight voids and cavities

Transport Solutions
BRIDGES

BRIDGE BEARING GROUTING

Bridge bearing pads provide the supporting surface between the piers and deck of a bridge. The purpose of a bearing is to reduce the stresses involved in the controlled movements of the bridge.

Bluey offers a range of grouts to suit the specific requirements of a range different bridge designs, all of which have been designed to withstand the range of stresses each bridge can exert.

- Long pot life
- High pumpability
- High 28-day strength: 80MPa

VOID GROUTING

Void grouting fills all available spaces and cavities, adding strength to the weakest hollow internal segments throughout bridges. As well as assisting with load transfer between elements and into the substrate, void grouting also reduces the opportunity for corrosion – both of which are critical factors in helping to increase a bridge's life span.

For tight spaces that require a highly fluid grout, our contractors prefer BluCem HS200.

BluCem HS200 – PT Cable Grout

- Ultra high flow
- Zero bleed
- Rapid strength gain
- Workable for several hours
- NSW RMS and QLD TMR approved
- Suitable for 100 year design life

When grouting requires controlled placement in an open void, we recommend BluCem HS400, a thixotropic grout, typically used for void filling under bridge abutments.

Transport Solutions
BRIDGES

POST-TENSION GROUTING

Bridge post-tension grouting involves the grouting of the duct surrounding tension cables, providing the necessary strength to transfer the stresses between the bridge tendons and cables to the bridge deck, concrete and surrounding ground.

BluCem HS200 uses the most advanced superplasticisers and suspension agents available to create an exceptionally high-performance post-tension cable grout. The grout ensures full encapsulation of the duct without bleed, segregation or presence of voids.

BluCem HS200 – PT Cable Grout

- Ultra high flow
- Zero bleed
- Workable for several hours
- Aluminium and metallic expansion agent free
- Suitable for 100 year design life
- Protection of high tensile steel elements
- Conforms to global standards including EN447 and RMS R64

TIME CRITICAL GROUTING

In bridge applications where asset shutdowns must be minimised, BluCem HE80 (our high early strength grout) has been utilised for decades. The specialised engineered cement system allows the grout to remain fluid during placement and ensures a high strength and durable, long term solution.

BluCem HE80 – Early Strength Grout

- +100 year design life
- Highly flowable
- Non-shrink
- No late formation ettringite
- Extensive batch testing

We also supply BluCem HE80AG, a micro-concrete designed for larger, open applications.

Transport Solutions
BRIDGES

SEGMENT MATCH CASTING

Segment match casting involves joining preceding pre-cast concrete bridge sections to adjacent sections. This construction process is the safest and most effective method currently used across the globe.

BluRez Epoxy 575 – High Bond Structural Adhesive Epoxy

- Extended work time
- Thixotropic consistency
- Easy to apply to precast segments
- High strength – 60MPa at 24 hours

GROUND ANCHORING

Ground anchors are stressed to prevent structural movement and are suited for strong rock conditions. Bluey has supplied a range of multi-strand ground anchor systems to major infrastructure projects across the globe, including:

- Permanent multi-strand anchors – these fulfil their function for the duration of the working life of a structure and require comprehensive corrosion protection
- Temporary multi-strand anchors – temporary anchors with a working life of up to 2 years
- Removable multi-strand anchors – temporary anchor (working life up to 2 years) with the strands being removed at the end of the working life

Transport Solutions

RAIL

GROUND STABILISATION	
Blu**Geo** GRP60	GRP CONTINUOUSLY THREADED SOLID BAR
Blu**Cem** HS200	PT CABLE GROUT
NON-CONDUCTIVE REINFORCEMENT	
Blu**Geo** GRP60	GRP CONTINUOUSLY THREADED SOLID BAR
FAST SETTING CONCRETE	
Blu**Cem** FSC	FAST SET CONCRETE
TIME CRITICAL GROUTING	
Blu**Cem** HE80	EARLY STRENGTH GROUT
ELECTRICAL UNDERBORE GROUTING	
Blu**Cem** LH60	DEEP POUR ENGINEERED GROUT
Blu**Cem** EA55RM	LOW THERMAL RESISTIVITY CEMENTITIOUS GROUT
RAIL TUNNEL MAINTENANCE	
Blu**Cem** HE80	EARLY STRENGTH GROUT
Blu**Rez** CSW	WATER STOPPING POLYURETHANE RESIN
Blu**Geo** GRP60	GRP CONTINUOUSLY THREADED SOLID BAR

Transport Solutions
RAIL

Since 2003, we've supplied industry-leading products and specialist advice to help our partners maintain reliable and safe rail networks.

GROUND STABILISATION

A train's journey carrying passengers, goods or raw materials, should always be seamless and reliable. The tracks on which trains run need to remain well supported to carry the enormous dynamic point loads created by the rapidly moving wheels.

Ground stabilisation plays a crucial role in supporting the tracks and surrounding ground which makes it a critical part of rail reliability in all conditions. Bluey offers a wide range of solutions which ensure the stability of:

- Loose rock
- Unstable, weak ground
- Slopes and embankments
- Rail lines
- Rail tunnels

NON-CONDUCTIVE REINFORCEMENT

In electrified rail systems, the metal tracks are typically used to return current from the trains back through the system. Insulation of the tracks from the ground is an important aspect of this system. Metal components such as steel rock bolts running perpendicular to the rail into the ground can result in 'stray current' leakage.

To offer a non-conductive alternative, Bluey introduced BluGeo GRP60, a glass-fibre reinforced polymer bar.

BluGeo GRP60 – GRP Continuously Threaded Solid Bar

- Durability – 100 year design life
- High Strength – Tensile and Shear
- Non Conductive – No stray currents
- Lightweight – Less equipment for installation

Transport Solutions
RAIL

FAST SETTING CONCRETE

Rail bridges, corridors and pavements are just a few areas where fast setting, high strength concrete is required across the rail network.

BluCem FSC has been designed as a cementitious binder that can be mixed with coarse and fine aggregates to produce a rapid-set concrete.
The use of BluCem FSC allows these time-critical assets to return to service in hours, rather than weeks or months.

BluCem FSC – Fast Set Concrete

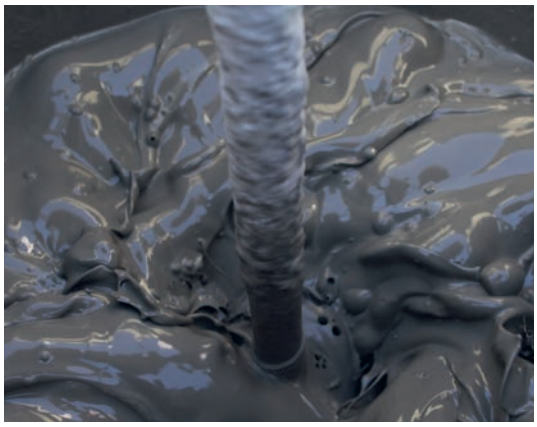
- 100 year design life
- Assets returned to service in under 3 hours
- Extensive 1000+ day testing
- Suitable for a range of mix designs and water ratios
- Workability control
- High early flexural and compressive strengths

TIME CRITICAL GROUTING

In rail applications where asset shutdowns must be minimised, we recommend our high early strength grout, BluCem HE80. The specialised engineered cement system allows the grout to remain fluid during placement and ensures a high strength and durable, long term solution.

BluCem HE80 – Early Strength Grout

- +100 year design life
- Highly flowable
- Non-shrink
- Suitable for encased application
- No late formation ettringite
- Extensive batch testing



Transport Solutions
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ELECTRICAL UNDERBORE GROUTING

Electrical underbore grouting aids in the dissipation of heat from high voltage electrical conduits, increasing the cable's insulation properties and allowing additional voltage loads to be placed on cables. These results create superior cable ratings and a reduction in long term costs.

BluCem EA55RM – Low Thermal Resistivity Cementitious Grout

- Specifically designed to produce low heat during hydration
- Thermal resistivity (TR) of 0.69km-w
- Low exothermic reaction temperatures
- Suitable for large, deep pours
- No heat damage to conduits during curing

RAIL TUNNEL MAINTENANCE

Most rail tunnels across the globe were constructed in the 20th century and are lined with stone or brick. These materials can often be challenging to remediate, so we aim to use products and machinery that cause the least movement and excavation of these areas.

BluGeo GRP ground anchors cause minimal damage and provide a +100 year design life solution for the rail tunnel network.

BluGeo GRP60 – GRP Continuously Threaded Solid Bar

- Does not require double corrosion protection
- >50% reduction in excavation and grouting
- 1/4 the weight of steel
- Lightweight and easy to install
- High tensile and shear strengths
- Non-corrosive and acid resistant

We deliver...

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

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Our products have Government and Regulatory Authority approvals across Australia and New Zealand.

Exclusive Distributors for

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