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Contact us:
Australia
1300 227 300 (1300 BASF 00)
master-builders-solutions.basf.com.au
New Zealand
0800 334 877
## Grouts - Cementitious

<table>
<thead>
<tr>
<th>Product</th>
<th>Compressive Strength 7 days (MPa)</th>
<th>Pour Depth min - max</th>
<th>Machine Base</th>
<th>Anchor Bolt Clearance</th>
<th>High Dynamic Load</th>
<th>Chemical Resistance</th>
<th>High Temp Resistance</th>
<th>Creep Resistance</th>
<th>Deep Pour</th>
<th>Low Exotherm</th>
<th>High Temp Resistance 7 days (MPa)</th>
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<tr>
<td>MasterFlow 618</td>
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<td>150 - 450</td>
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## Grouts - Epoxy

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<th>Compressive Strength 28 days (MPa)</th>
<th>Pour Depth min - max</th>
<th>Machine Base</th>
<th>Anchor Bolt Clearance</th>
<th>High Dynamic Load</th>
<th>Chemical Resistance</th>
<th>High Temp Resistance</th>
<th>Creep Resistance</th>
<th>Deep Pour</th>
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<th>High Temp Resistance 7 days (MPa)</th>
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<td>MasterFlow 816</td>
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</table>
MasterFlow® 700
Cementitious general purpose construction grout

DESCRIPTION:
MasterFlow 700 is a ready-to-use pumpable, natural aggregate, general purpose grout which undergoes controlled expansion in the plastic state.
MasterFlow 700 is a Class A grout as defined by AS 1478.1-2000, Appendix E, section E5.1.
MasterFlow 700 may be placed in dry (damp) packed, plastic or fluid consistency and is generally used in applications requiring a grout thickness between 12mm and 100mm.

RECOMMENDED FOR:
All general purpose grouting operations with clearances of 12mm to 100mm, including:
- Non-critical column and equipment bases
- An in-fill grout for cavity block walls
- Caulking of joints and pipes
- Between and under pre-cast panels and other joints where total load-bearing is not required
- Underpinning where a grout similar in appearance to concrete is required

FEATURES AND BENEFITS:
- Ready to use - premixed grout requires only the addition of mixing water on site.
- Low water/cement ratio - reduces drying shrinkage and increases durability.
- Damp packable - can be applied without slumping.
- Complete void filling - resulting from controlled fluid-phase expansion.
- Non staining grout - similar in appearance to plain concrete.
- Economical - relatively low in-place cost due to its ease of use and flowable properties.
- No added chlorides - does not contribute to chloride load.

ESTIMATING DATA:
A 20kg bag of MasterFlow 700 mixed with 3 litres water yields 10.5 litres (0.0105m³).

PACKAGING:
MasterFlow 700 is packaged in 20kg moisture resistant paper bag.
MasterFlow® 788
Non-shrink, cementitious grout for underwater applications

DESCRIPTION:
MasterFlow 788 is a ready to use, cementitious grout which, on mixing with the specified quantity of water provides a flowable grout with high resistance to cement wash out when placed under water, with high early and final strength characteristics. The grout undergoes controlled expansion in the plastic state.

RECOMMENDED FOR:
MasterFlow 788 is recommended for 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
- Harbour walls

FEATURES AND BENEFITS:
- Shrinkage compensated - continues to retain filled volume.
- Non-wash out - no significant cement wash out under water. Gains full strength even under water.
- Free flowing - flows easily even in gaps as narrow as 20 mm, to facilitate complete filling of voids.
- Pre packed - no batching or blending errors. Consistency in performance from batch to batch.
- Dense micro structure - resists water ingress. Protects steel.
- High early and final strengths - early load transfer and rapid installation.
- High bond strength - primer not required to facilitate good bond.

ESTIMATING DATA:
The yield from 20 kg MasterFlow 788 at flowable consistency is 11 L. Therefore material requirement is 18.2 kg/m² at 10 mm thickness.

PACKAGING:
MasterFlow 788 is available in 20kg bags and 1000kg bulk bags.
MasterFlow® 810

Non-shrink, precision cementitious grout for use in general civil engineering works

DESCRIPTION:
MasterFlow 810 is a ready to use, non-shrink, natural aggregate cementitious precision grout for use in general civil engineering works. MasterFlow 810 provides extended working life and high early and ultimate strengths.

RECOMMENDED FOR:
All precision, non-shrink grouting applications with clearances of 10mm to 100mm, including:

- Critical equipment baseplates, soleplates and columns.
- Precast wall panels, beams, columns, structural building members and curtain walls.
- Patching poured in place concrete structures e.g. honeycombing, using preplaced aggregate techniques.
- Underpinning.
- Anchoring dowels, bolts and other fixings.
- Applications requiring high early compressive strengths and high ultimate compressive strengths.

FEATURES AND BENEFITS:
- High strength - provides good early and ultimate strengths which ensure quick return to service and long term durability
- Non shrink - hardens free of bleeding, settlement and drying shrinkage when placed at flowable consistency
- Flowable consistency - ensures complete filling of even intricate voids often without the need for pumping and strapping
- Ample working time - remains placeable up to 1 hour, even at high ambient temperatures
- Dense, impermeable grout - provides a good watertight seal
- No added chloride - does not add to chloride load on structure
- Provides complete non shrink performance - when tested in accordance with simulated Bedplate Technique.
- Compliance with codes - meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; tested to the requirements of AS1478.2 “Methods of sampling and testing admixtures for concrete, mortar and grout”.

ESTIMATING DATA:
20kg of MasterFlow 810 mixed to flowable consistency produces approximately 11.0litres (0.011m³) of grout.

PACKAGING:
MasterFlow 810 is packaged in 20kg moisture resistant bag.
MasterFlow® 815
Cementitious high strength non-shrink precision grout for deep pour applications

DESCRIPTION:
MasterFlow 815 is a non-shrink, natural aggregate precision grout for deep pours, formulated to provide ample working time when mixed and placed at flowable consistency. It contains specially graded natural aggregate up to 5 mm in size and provides high early and ultimate compressive strengths. It is generally used for deep pour applications between 50mm and 500mm.

RECOMMENDED FOR:
MasterFlow 815 is used for all precision, non-shrink grouting applications with thick layers and clearances of 50mm or more, including:

- Equipment baseplates, sole plates & columns
- Precast concrete panels, beams and columns
- Concrete repair applications where a form and pour material is required
- Grouting thick pour applications up to 500mm thick
- Applications requiring high early compressive strengths and high ultimate compressive strengths

FEATURES AND BENEFITS:
- High strength - provides good early and ultimate strengths, which ensure quick return to service and long term durability
- Non shrink - hardens free of bleeding, settlement and drying shrinkage when placed at flowable consistency
- Ample working time - remains placeable even at high ambient temperatures
- Flowable consistency - able to be pumped with grout pump
- Non staining - free of metallic aggregate
- Similar in appearance to plain concrete
- No added chloride
- Complies with codes - meets requirements of AS1478.2 - 2005 and the non-shrink requirements of ASTM C1090 and CRD-C 621 Corps of Engineers Specification for Non-Shrink Grout
- Provides complete non-shrink performance when tested in accordance with a simulated Bedplate Technique

ESTIMATING DATA:
20kg of MasterFlow 815 mixed to flowable consistency produces approximately 10.0 litres (0.01 m³) of grout.

PACKAGING:
MasterFlow 815 is packaged in 20kg moisture resistant bag.
MasterFlow® 816
Cementitious aggregate free cable grout

DESCRIPTION:
MasterFlow 816 is a ready-to-use aggregate free grout specially formulated for applications that require a fluid shrinkage compensating grout where clearances are shallow, grouting of tensioned cables and rods stressed above 550MPa.

RECOMMENDED FOR:
- Shrinkage compensated grouting in restricted spaces between precast wall panels, beams and columns where grout will be in contact with highly stressed steel
- Grouting of anchor bolts, rods and pipes where the annular space is too small for conventional aggregate containing grouts (clearances of 6 to 25mm)
- Repairs to concrete, such as cracks and honeycombing, filing small voids
- Pumping into areas around pre-tensioned or post-tensioned cables and rods to encapsulate the steel and protect it against corrosion, and to provide maximum anchorage
- Placing around end sections of unanchored cables and rods to provide anchorage for subsequent tensioning
- Grouting cable anchor plates or other types of plates where grout will be in contact with highly stressed anchorages.

FEATURES AND BENEFITS:
- Aggregate free - pumpable into areas inaccessible to conventional grouts or grouting methods and to enhance flow and protect stressed tendons, bolts or bars from corrosion
- Hydrogen free expansion mechanism - no danger of hydrogen embrittlement of high tensile tendons
- No bleeding - completely fills ducts with no free space
- Long open time - can be pumped and/or recirculated for relatively long periods of time
- Non shrink - hardens without shrinkage within the sheath or hole ensuring maximum bond and protection against ingress of water while in service

ESTIMATING DATA:
20kg of MasterFlow 816 when mixed to fluid consistency produces approximately 13.6 litres (0.0136m³) of grout.

PACKAGING:
MasterFlow 816 is packaged in 20kg moisture resistant bags.
MasterFlow® 870
Cementitious high strength non-shrink precision grout

DESCRIPTION:
MasterFlow 870 is a non-shrink, natural aggregate precision grout with excellent high early and ultimate strengths. It is specially formulated to provide extended working time even at high ambient temperatures when mixed and placed at any recommended consistency. MasterFlow 870 is normally placed at a flowable consistency to completely fill voids between 10mm and 100mm.

RECOMMENDED FOR:
MasterFlow 870 is used for all precision, non-shrink grouting applications with clearances of 10mm to 100mm, including:

- Critical equipment baseplates, soleplates & columns
- Precast wall panels, beams, columns, structural building members and curtain walls
- Patching poured in place concrete structures, e.g. honeycombing, using preplaced aggregate techniques
- Underpinning
- Concrete repair applications where a form and pour material is required
- Applications requiring high early compressive strengths and high ultimate compressive strengths.

FEATURES AND BENEFITS:
- High early strength - ensures rapid commissioning of new equipment and structures
- High ultimate strength - ensures permanence of the installation under static and moderate repetitive loads
- Flowable long life grout - easy to grout intricate space normally inaccessible by conventional grouting techniques
- Extended working time - facilitates grouting of large or difficult placements in a single pour, often without the use of a pump
- Dense, non-shrink grout - hardens free of bleeding, settlement and drying shrinkage, ensuring tight contact with all grouted surfaces
- No added chloride - does not add to chloride load of structure
- Compliance with codes - meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; provides complete non shrink performance when tested in accordance with simulated Bedplate Technique; tested to the requirements of AS1478.2 "Methods of sampling and testing admixtures for concrete, mortar and grout".
ESTIMATING DATA:
One 20 kg bag of MasterFlow 870 mixed according to directions will yield the following consistency grouts at 20°C:
Flowable – 10.8 litres, approximately
Plastic – 10.4 litres, approximately

PACKAGING:
MasterFlow 870 is available in 20kg bags.
MasterFlow® 4500
Cementitious high strength non-shrink precision grout

DESCRIPTION:
MasterFlow 4500 is a non-shrink, PCE plasticized natural aggregate precision grout with excellent high early and ultimate strengths. It is specially formulated to provide extended working time even at high ambient temperatures when mixed and placed at any recommended consistency. MasterFlow 4500 is normally placed at a flowable consistency to completely fill voids between 10mm and 100mm. Thicknesses greater than 100mm are possible with the use of MasterFlow 4510.

RECOMMENDED FOR:
MasterFlow 4500 is used for all precision, non-shrink grouting applications with clearances of 10mm or more, including:
- Critical equipment baseplates, soleplates & columns
- Precast wall panels, beams, columns, structural building members, modular building construction and curtain walls
- Patching poured in place concrete structures, e.g. honeycombing, using pre-placed aggregate techniques
- Applications requiring high early compressive strengths and high ultimate compressive strengths.

FEATURES AND BENEFITS:
- High early strength - ensures rapid commissioning of new equipment and structures
- High ultimate strength - ensures permanence of the installation under static and moderate repetitive loads
- Flowable non-thixotropic grout - easy to grout intricate spaces as grout easily melds with previous pours and requires no additional strapping or agitation
- Extended working time - facilitates grouting of large or difficult placements in a single pour, often without the use of a pump
- Dense, non-shrink grout - hardens free of bleeding, settlement and drying shrinkage, ensuring tight contact with all grouted surfaces
- Compliance with codes - meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; tested to the requirements of AS1478.2 “Methods of sampling and testing admixtures for concrete, mortar and grout”

ESTIMATING DATA:
One 20 kg bag of MasterFlow 4500 mixed according to directions will yield the following consistency grouts at 20°C:
Flowable - 10.5 litres, approximately

PACKAGING:
MasterFlow 4500 is available in 20kg bags
MasterFlow® 4510

Cementitious high strength non-shrink deep pour precision grout

DESCRIPTION:
MasterFlow 4510 is a non-shrink, PCE plasticized natural aggregate precision grout with excellent high early and ultimate strengths. It is specially formulated to provide extended working time even at high ambient temperatures when mixed and placed at any flowable consistency. MasterFlow 4510 is normally placed at a flowable consistency to completely fill voids between 35mm and 500mm.

RECOMMENDED FOR:
MasterFlow 4510 is used for all precision, non-shrink grouting applications with clearances of 35mm or more, including:
- critical equipment baseplates, soleplates & columns up to 500 mm thick
- precast wall panels, beams, columns, structural building members, modular building construction and curtain walls
- underpinning;
- applications requiring high early compressive strengths and high ultimate compressive strengths
- Jacket grouting applications

FEATURES AND BENEFITS:
- High early strength - ensures rapid commissioning of new equipment and structures
- High ultimate strength - ensures permanence of the installation under static and moderate repetitive loads
- Extended working time - facilitates grouting of large or difficult placements in a single pour, often without the use of a pump
- Dense, non-shrink grout - hardens free of bleeding, settlement and drying shrinkage, ensuring tight contact with all grouted surfaces
- Easy to use - requires no special mixing equipment, it can be mixed in a standard grout pump with 6mm particle capability or in a pail using a grout stirrer
- Compliance with codes - meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; tested to the requirements of AS1478.2 “Methods of sampling and testing admixtures for concrete, mortar and grout”

ESTIMATING DATA:
MasterFlow 4510 mixed according to directions to a flowable consistency will yield the following at 20°C:
- 1000Kg Bag: 485 Litre approx.
- 20Kg Bag: 9.7 Litre approx.

PACKAGING:
MasterFlow 4510 is packaged in 20 kg bags and 1000Kg bulk bags.
MasterFlow® 4600
Cementitious ultra high strength, non-shrink, iron reinforced precision grout

DESCRIPTION:
MasterFlow 4600 is a non-shrink, PCE plasticised iron reinforced precision grout with ultra-high early and ultimate strengths. It is formulated to provide extended working time even at high ambient temperatures when mixed and placed at any recommended consistency. MasterFlow 4600 is normally placed at a flowable consistency to completely fill voids between 20mm and 150mm.

RECOMMENDED FOR:
MasterFlow 4600 is used for all ultra-high precision, non-shrink grouting applications with clearances of 15mm or more, particularly those requiring maximum dynamic load bearing and impact resistance such as:
- Critical equipment baseplates, soleplates & columns.
- Crane rails, ball mills, crushers.
- On-shore wind turbines requiring high torsional and dynamic load resistance.
- Rolling, stamping, drawing and finishing mills for the steel and aluminium industries.
- Turbines, generators, pumps and centrifugal compressors.
- “H” shaped steel columns, steel tube columns.
- Applications requiring ultra-high early compressive strengths and ultimate compressive strengths.
- High flow for full compaction even in areas with congested reinforcement.

FEATURES AND BENEFITS:
- Iron reinforced - contains inert iron aggregate as internal reinforcement. Provides improved resistance to heavy impact, vertical and horizontal repetitive loading as well as rotational torque.
- High early strength - ensures rapid commissioning of new equipment and structures.
- High ultimate strength and resistance to dynamic loads - ensures permanence of the installation under static and repetitive loads.
- Flowable long life grout - easy to grout intricate spaces normally inaccessible by conventional grouting techniques.
- Extended working time - facilitates grouting of large or difficult placements in a single pour, often without the use of a pump.
- Pumpable - greater volumes of grout can be mixed and handled with less labour.
- Dense, non-shrink grout - hardens free of bleeding, settlement and drying shrinkage, ensuring tight contact with all grouted surfaces.
- Compliance with codes - meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; tested to the requirements of AS1478.2 “Methods of sampling and testing admixtures for concrete, mortar and grout”.

BASF
We create chemistry
ESTIMATING DATA:
One 20 kg bag of MasterFlow 4600 mixed according to directions will yield the following consistency grouts at 20°C:
Flowable – 8.7 litres, approx.

PACKAGING:
MasterFlow 4600 is packaged in 20 kg bags.
**MasterFlow® 9200**

**Ultra high strength, cement based grout with applied nanotechnology for grouting onshore wind turbine installations**

**DESCRIPTION:**
MasterFlow 9200 is a shrinkage compensated, cement based grout which when mixed with water, produces a homogeneous, flowable and pumpable grout with exceptionally high early and final strength and modulus. The product exhibits increased ductility, fatigue and impact resistance. Latest best binder packing models and applied nanotechnology produces a grout with superior technical performance, exceptional rheological properties, and uniquely, extended open times.

**RECOMMENDED FOR:**
MasterFlow 9200 has been especially formulated for:
- Grouting of wind turbine installations, that are installed using pre-stressing techniques e.g. base plate grouting of onshore wind turbines
- Installations where excellent fatigue resistance is required
- Grouting under very harsh conditions, e.g. temperatures as low as 2°C
- Anchoring anchor bolts of wind turbine towers
- All void filling from 25mm to 300mm where high strength, high modulus, high ductility is important

**FEATURES AND BENEFITS:**
- Validated according the German DAfStb guideline (RILI): “Production and application of cement based flowing concrete and grouting mortar” (VeBMR).
- Ultra high compressive strength: class C100/115
- Ultra high modulus for exceptional stiffening properties
- Excellent fatigue resistance
- Quick return to service and removal of temporary supports due to high early strength build-up ≥ 55 MPa @ 24hrs at 20°C
- No segregation or bleeding to ensure consistent final physical performance and to prevent pump blockages
- Pumpable over long distances and large heights.
- Extended pot life of ≥ 2 hours
- Can be pumped or poured into complex areas or areas inaccessible to conventional grouting methods
- Specially graded sands and exceptional flow and low friction increases pump output, reduces installation times and costs as well as reducing pump pressures and wear
- Dust reduced for ease of handling
- Cement based
- Low chromate

**ESTIMATING DATA:**
1.875 to 2L water per 25kg bag. 25kg bag will yield for 11.4 litre of mixed mortar.

**PACKAGING:**
MasterFlow 9200 is supplied in 25kg bags.
MasterFlow® 9300

Ultra high strength, cement based grout with metallic aggregate and applied nanotechnology for grouting onshore wind turbine installations

DESCRIPTION:
MasterFlow 9300 is a shrinkage compensated, cement based grout which when mixed with water, produces a homogeneous, flowable and pumpable grout with exceptionally high early and final strength and modulus. The product contains special metallic aggregates for increased ductility, fatigue and impact resistance. Latest best binder packing models and applied nanotechnology produces a grout with superior technical performance, exceptional rheological properties, and uniquely, extended open times.

RECOMMENDED FOR:
MasterFlow 9300 has been especially formulated for:
- Grouting of windmill installations e.g. base plate grouting of onshore wind turbines
- Installations where excellent fatigue resistance is required
- Grouting under very harsh conditions, e.g. temperatures as low as 2°C.
- Anchoring anchor bolts of wind turbine towers
- All void filling from 30mm to 200mm where high strength, high modulus, high ductility is important

FEATURES AND BENEFITS:
- Ultra high compressive strength > 120 Mpa
- Ultra high modulus for exceptional stiffening properties
- Excellent fatigue resistance
- Quick return to service and removal of temporary supports due to high early strength build-up > 60 MPa @ 24hrs at 20°C
- No segregation or bleeding to ensure consistent final physical performance and to prevent pump blockages
- Contains metallic aggregates to provide increased resistance to dynamic and repetitive loading
- Pumpable over long distances and large heights.
- Extended pot life of ≥ 2 hours
- Can be pumped or poured into complex areas or areas inaccessible to conventional grouting methods
- Specially graded sands and exceptional flow and low friction increases pump output, reduces installation times and costs as well as reducing pump pressures and wear
- Dust reduced for ease of handling
- Cement based
- Low chromate

ESTIMATING DATA:
2.0 to 2.125L water per 25kg bag. 25kg bag will yield 10 litres of mixed mortar.

PACKAGING:
MasterFlow 9300 is supplied in 25kg bags.
MasterFlow® 9500

Ultra high strength, high modulus, cement based grout with applied nanotechnology for grouting offshore wind turbine installations

DESCRIPTION:
MasterFlow 9500 is a shrinkage compensated, cement based grout which when mixed with water, produces a homogeneous, flowable and pumpable grout with exceptionally high early and final strength and modulus. Latest best binder packing models and applied cementitious nanotechnology produces a grout with superior technical performance, exceptional rheological properties, and uniquely, extended open times.

RECOMMENDED FOR:
MasterFlow 9500 has been especially formulated for large scale, pump applications.
- Grouting of wind turbine installations, e.g. foundations, mono-piles, transition pieces of wind towers, where very good fatigue resistance is required
- Grouting under very harsh conditions, e.g. off-shore applications or below water grouting, at temperatures as low as 0°C
- All void filling from 25mm to 200mm thickness where high strength, high modulus is important (in other applications or where void dimensions of 10 - 25 mm are to be filled contact our technical department)
- Grouting of steel caisson annulus type applications

FEATURES AND BENEFITS:
- Approved for offshore use - “Statement of Compliance” by Det Norske Veritas (DNV)
- Ultra high mean compressive strength - ≥ 135MPa
- Ultra high modulus for exceptional stiffening properties - vertical and horizontal load transfer
- Very good fatigue resistance - able to cope with shear stress
- Quick return to service and removal of temporary supports - high early strength build-up (≥ 60 MPa @ 24hrs at 20°C)
- Wide temperature window - excellent strength gain at low temperatures @ 0°C at 24hrs
- No wash-out - suitable for below water grouting
- Pumpable - long distances and large heights
- Extended pot life of ≥ 4 hours - long working time
- Specially graded sands give exceptional flow and low friction increases pump output - reduces installation times and costs as well as reducing pump pressures and wear
- Dust reduced - ease of handling and safety of workers
- Cement based - easy clean up of equipment
- Available in special, watertight big bags - large scale application on the ocean

ESTIMATING DATA:
Approximately 2.2kg powder is needed for 1 litre of mixed grout. Water addition is 1.8-2L water per 25kg bag. 1000kg powder will yield approximately 450 litres of mixed grout.

PACKAGING:
MasterFlow 9500 is supplied in special watertight 1000kg bulka bags.
MasterFlow® 618
Heavy-duty epoxy resin grout

DESCRIPTION:
MasterFlow 618 is a solvent-free rapid hardening, high strength grout, based on modified epoxy resin and is designed for use as a precision, heavy-duty chocking grout for engineering applications. It is supplied as a two-component system consisting of epoxy resin, combined with inert fillers and a hardener, to produce a high viscosity flowable liquid grout.

RECOMMENDED FOR:
- 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.
- Production line equipment that must resume operations with minimum downtime.
- Machinery base plates, crane rails, anchor bolts hold down bolts and heavy equipment where tensile strength greater than cementitious systems can provide are required.

MasterFlow 618 is not recommended where the temperature of the grout after mixing and placing cannot be maintained above 15°C for a period of 48 hours to achieve full cure. Where a maximum thickness is greater than 50 mm, then additional aggregate may be incorporated (refer to BASF). Do not use where upper operating temperature is in excess of 100°C.

FEATURES AND BENEFITS:
- **Resistance to vibration and impact** - particularly applicable where cycles of compression/ tension make cementitious grouts unsuitable.
- **Minimum shutdown** - high early and ultimate strengths.
- **Excellent chemical resistance** - maximum protection against attack from mineral acids, oils, fats, fuels, and strong alkali and salt solutions and lubricating and hydraulic oils.
- **High bond strength** - tenacious adhesion to prepared surfaces.
- **Supplied in pre-measured kits** - eliminates the need for complicated on-site measuring and ensured product performance.

ESTIMATING DATA:
MasterFlow 618 is available in a two-component pack of 10kg which yields 5.9 litres when mixed.

PACKAGING:
Two-component system available in a 10kg kit comprising:

<table>
<thead>
<tr>
<th>Material</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A Resin</td>
<td>9.1kg</td>
</tr>
<tr>
<td>Part B Hardener</td>
<td>0.9kg</td>
</tr>
</tbody>
</table>
MasterFlow® 628
Multi-purpose epoxy resin grout

DESCRIPTION:
MasterFlow 628 is a solvent-free multi-purpose, high performance; epoxy resin based grouting system designed for structural applications in adverse weather conditions. MasterFlow 628 is supplied as a two-component system, with a high flow capability.

RECOMMENDED FOR:
- Areas requiring a moisture insensitive bond to the concrete substrate
- Bolt, rebar structure anchoring, hold down bolts
- Baseplates and machinery grouting
- Crane rails and tight clearances
- Exterior grouting and repair applications
- Jacket grouting applications

FEATURES AND BENEFITS:
- **High early and ultimate strength** - able to transfer load quickly
- **High bond strength to correctly prepared concrete and to steel** - resists vibration and highly repetitive loading
- **No on-site measuring** - supplied in pre-measured volumes ensuring product success
- **Pumpable** - fast application for complex and large baseplates
- **Displaces water** - Suitable for shallow depth underwater grouting
- **Suitable for chemical exposure situations** - excellent chemical resistance to oils, mineral acids, fuels and alkali solutions

ESTIMATING DATA:
MasterFlow 628 yields approximately 5.9 litres when mixed.

PACKAGING:
MasterFlow 628 system is available in a two-component 10kg kit comprising:

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A Resin</td>
<td>9kg</td>
</tr>
<tr>
<td>Part B Hardener</td>
<td>1kg</td>
</tr>
</tbody>
</table>
MasterFlow® 648
High strength, high temperature, high flow epoxy resin grout

DESCRIPTION:
MasterFlow 648 is a solvent free, high flow, epoxy resin based grout. Supplied as a three component system, the final viscosity and flow characteristics can be adjusted to suit the particular project and application by varying the quantity of Part C that is used. MasterFlow 648 provides high early and seven day strengths, as well as excellent resistance to high operation temperatures and crack inducing vibration.

RECOMMENDED FOR:
- 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
- The pulp and paper, chemical processing, mining and power industries for a wide variety of applications
- Applications requiring fast turn around with high early and seven day compressive strengths

FEATURES AND BENEFITS:
- High flow - effective grouting of even narrow gaps and large baseplates
- High tensile and flexural strengths - efficient transfer of operational loads to foundation including high dynamic loads
- High strengths even at elevated temperatures - maintains alignment and level even with elevated baseplate temperatures
- High bond strength - protects machine from vibrations by effective dampening
- High resistance to creep - maintains alignment and level over long time
- Good chemical resistance - durable even when exposed to many industrial chemicals
- High early strengths - allows early load transfer and rapid commissioning of machines
- Variable fill ratio - flowability can be optimised for ease of application and to maximise the cost of effectiveness

ESTIMATING DATA:

<table>
<thead>
<tr>
<th>Mix Type</th>
<th>Parts A + B + C</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Flow</td>
<td>114.16kg (5 x Part C)</td>
<td>57 Litres</td>
</tr>
<tr>
<td>Hi-Flow</td>
<td>94.16kg (4 x Part C)</td>
<td>49.6 Litres</td>
</tr>
</tbody>
</table>

PACKAGING:
MasterFlow 648 is supplied as pre-portioned packs in kits, consisting of:

<table>
<thead>
<tr>
<th>Component</th>
<th>23.54kg Kit</th>
<th>114.16kg Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>2.54kg</td>
<td>10.16kg</td>
</tr>
<tr>
<td>Part B</td>
<td>1.0kg</td>
<td>4.0kg</td>
</tr>
<tr>
<td>Part C</td>
<td>20kg</td>
<td>5 x 20kg</td>
</tr>
</tbody>
</table>
**MasterFlow® 678**

**Deep-pour epoxy resin grout**

**DESCRIPTION:**
MasterFlow 678 is a deep pour, low-exotherm, multi use three component epoxy grout. It can be used where deep sections of epoxy grout must be placed with low heat generation.

**RECOMMENDED FOR:**
- Deep-pour baseplate applications between 150mm and 450mm
- Repair of spalled concrete
- Rebuilding deteriorated curbs, bases and columns
- Anchoring bolts, rebar and dowels
- Exterior grouting and repairs

**FEATURES AND BENEFITS:**
- Long working time - facilitates proper placement
- Excellent creep resistance, even at high temperatures - will not deform under constant loads
- Low exotherm - results in minimal heat generation
- Reduces installation costs - precludes the necessity of rebar installation or multiple lifts
- Superior adhesion - positive bond to concrete and steel
- Ideal for deep pours - can be placed in lifts of up to 450mm thick

**ESTIMATING DATA:**
One kit yields 45 litres (0.045m³)

**PACKAGING:**
MasterFlow 678 is supplied in an 91.43kg kit, incorporating pre-measured units:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>7.62kg</td>
</tr>
<tr>
<td>Part B</td>
<td>3.81kg</td>
</tr>
<tr>
<td>Part C</td>
<td>4 x 20kg</td>
</tr>
</tbody>
</table>