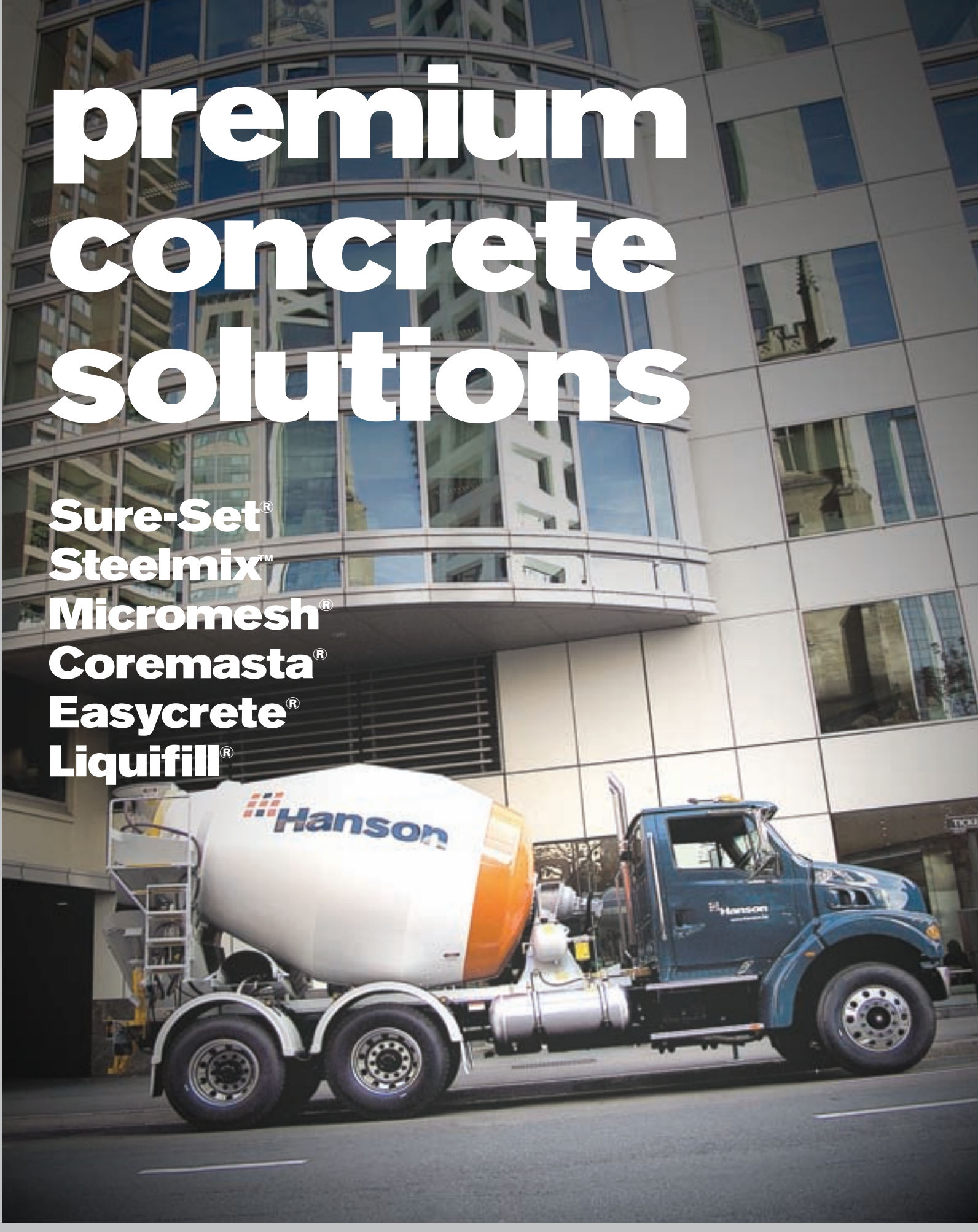
premium concrete solutions

Sure-Set®
Steelmix™
Micromesh®
Coremasta®
Easycrete®
Liquifill®



we'll make it happen

Hanson

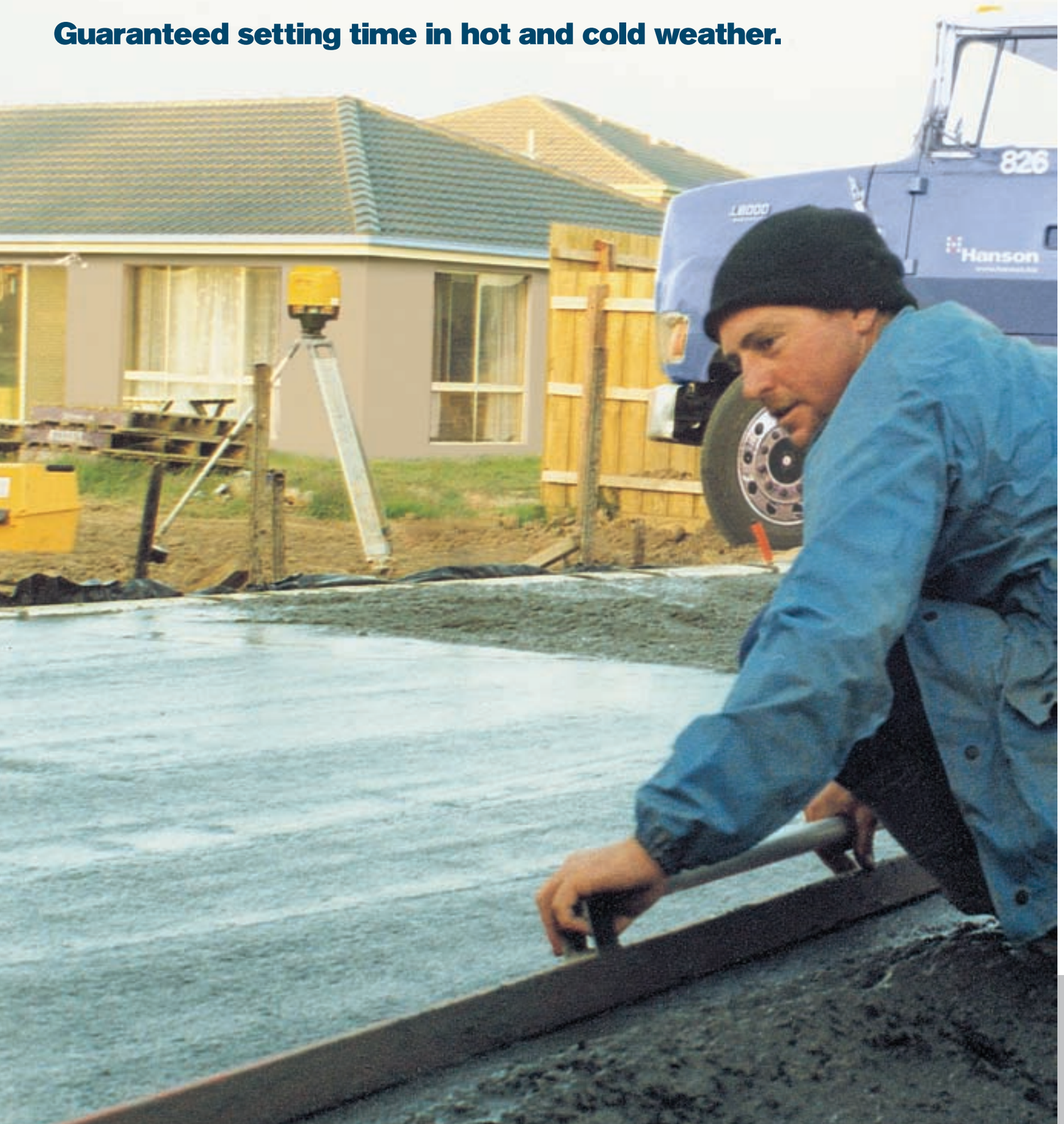
Concrete that goes off in 4 hours on a cold day? A block fill mix that flows like oil? 120 slump without adding extra water on-site? Backfill without compaction?

Whatever your concrete requirement, Hanson has the solution. Sure-Set®, Steelmix™, Micromesh®, Coremasta®, Easycrete® and Liquifill® are products designed to overcome site issues and help make your project quicker and easier. If you need to solve problems related to time, weather, quality, cost, labour or difficult compaction and need an innovative solution, we'll make it happen. For product availability or information about which product to use for a specific application, talk to your local Hanson Customer Service Manager.

we'll make it happen

Sure-Set®

Guaranteed setting time in hot and cold weather.



When time is money, Sure-Set® is your best bet. It takes a potentially costly variable out of the job with Hanson guaranteeing set time. Sure-Set® is available in three types (Gold, Silver & Bronze) to suit a range of weather conditions and applications. See chart below for details.

6 key advantages

1 Works in cold weather

From last load to concrete finishing takes just 6 hours with Sure-Set® Gold when the air temperature is 5°C at the discharge point.

2 No costly overtime

Sure-Set® lets you knock off earlier. Even concrete poured at noon can be finished by 3pm in certain circumstances. (Refer to chart for setting times under different weather conditions.)

3 More productive labour

Using Sure-Set® lets you organise your trades with military precision. No more idle work gangs standing around waiting for a pour to set before they can get on with the job.

4 Faster formwork removal

Where strength permits, Sure-Set® allows you to remove and start reusing formwork sooner than with regular concrete. This means less on-site material requirements.

5 Beat the storm

With Sure-Set® you can arrange a morning pour even when it looks like a storm later in the day. Quicker setting reduces the chance of fresh concrete being damaged by torrential rain or overnight vandals.

6 Money back guarantee

Hanson guarantees the setting times shown in the chart below, provided the warranty conditions are followed.

Applications

All concrete
Whenever set time is important
Cold weather
When concrete traditionally has longer set times
To speed up projects
When you want to get the job done early
Inclement weather
Likelihood of afternoon rain or interruption

Guaranteed maximum set time from delivery of the last load until concrete finished				
Sure-Set® type	Temperature at final discharge point			
	5-10°C	11-15°C	16-24°C	25-35°C
Bronze	8hrs	7hrs	6hrs	5hrs
Silver	7hrs	6hrs	5hrs	4hrs
Gold	6hrs	5hrs	*4hrs	*3hrs

WARNING - Time may be considerably less than specified so site provisions should be made for a faster set.
*Not available in all areas.

For information on the best way to use Sure-Set®, talk to your Hanson Customer Service Manager.

Please check product availability in your local area.

we'll make it happen

Hanson

Steelmix™

Eliminates the need for steel mesh.

Forget fixing steel. Steelmix™ does away with the need for mesh reinforcement. The steel fibres in Steelmix™ add strength and ensure that cracking is controlled and inhibited.

5 key advantages

1 Reduced labour costs

No need to place steel reinforcement means you can get straight on with the job. With Steelmix™ you're saving before you even start.

2 Less material costs

As well as eliminating the need for mesh, Steelmix™ can, in some cases, lead to a reduction in slab thickness, saving you even more on material costs.

3 Superior durability

Steelmix™ is a durable concrete with high flexural and fatigue flexural strength. It reduces spalling and offers excellent impact resistance with no problematic fibre exposure.

4 Reduced cracking

The random and even distribution of steel fibres in Steelmix™ ensures that cracking is controlled and inhibited throughout the concrete. Microcracks are intercepted before they develop.

5 Quicker construction

No steel mesh on-site reduces both construction time and your paperwork. With no steel in the way, trucks can drive right up to the discharge point and deliver loads without pumping.

Applications

Industrial pavements and slabs
Driveways and carports
Airport taxi ways
Shotcrete applications
Precast wall panels and products
Toppings and overlays on concrete decks
Bored compression piers
Machine pads
Garages and sheds
Walkways, footpaths and patios
Gully traps and inspection holes
Continuous paved roadways
All membrane structures

For information on the best way to use Steelmix™, talk to your Hanson Customer Service Manager.

Please check product availability in your local area.

we'll make it happen

Hanson

Micromesh®

Reduces plastic shrinkage cracking in non-structural applications.

Micromesh® improves the surface finish and reduces plastic shrinkage cracking.

4 key advantages

1 Reduced cracking
With Micromesh®, plastic shrinkage cracking is reduced by around 70-90%.

2 Better finish
Use Micromesh® and there will be reduced water bleed, improved impermeability and reduced cracking.

3 Increased durability
Micromesh® improves resistance, toughness, flexural fatigue and abrasion resistance.

4 Quality assured
Micromesh® is a quality assured product that has been developed to meet specific markets and applications.

Applications

Driveways
Carports
Garages
Sheds
Light vehicle traffic areas
Footpaths
Bikeways
Walkways
Garden sheds
Pool surrounds
Patios
Gully traps
Inspection holes
Decorative concrete

For information on the best way to use Micromesh®, talk to your Hanson Customer Service Manager.

Please check product availability in your local area.

we'll make it happen

Hanson

Coremasta®

The best ever block fill.
So good the formula is a secret.

Coremasta® is the ultimate block infill that flows like oil. Use it to fill masonry walls, in fact, use it to fill all your awkward inground structures. There is nothing else like it.

4 key advantages

1 Superior penetration

The unique oil-like flow of Coremasta® eliminates segregation problems and offers superior penetration to all block cavities. Won't block your pump either.

2 Unique formula

Coremasta® is a flowable concrete grout composed of aggregates, cement, fly ash and a special combination of admixtures.

3 Easy to place within difficult formwork

Excellent pumpability and setting qualities makes Coremasta® the right choice for tricky formwork jobs. Use it to fill moulds and awkward inground structures.

4 Save on time and labour

With Coremasta®, you don't get held up by blocked pumps or excessive rodding. When the job's done, simply clean out the pump and you're on your way home.

Applications

Infill to block masonry
Gully traps
Inspection holes
All awkward inground structures
Infill to difficult formwork sections or moulds

For information on the best way to use Coremasta®, talk to your Hanson Customer Service Manager.

Please check product availability in your local area.

we'll make it happen

Hanson

Easycrete®

Concrete placement has never been easier.

Easycrete® is guaranteed to retain a workability of better than 120mm slump for at least 30 minutes* after the concrete arrives on-site. No need to add water on-site, no loss of strength and reduced worries about surface problems like bleeding, dusting and cracking. Easycrete®, making it easy.

6 key advantages

1 120 slump with no loss of strength

The special Easycrete® formulation gives you concrete with increased slump, good paste and excellent finish without compromising on strength.

2 No water problems

You know that adding too much water to your mix on-site can result in loss of strength and surface problems. Easycrete® takes the temptation away with its ready to use 120 slump advantage.

3 Less wear and tear

Easycrete® reduces the wear and tear on your equipment and also your workers.

4 Faster workers

Because it's easier than regular concrete to place, Easycrete® allows your labour to cover more ground in less time.

5 Lower pumping costs

Due to lower pump pressures, Easycrete® can be pumped longer distances which can save you on time and money.

6 Guaranteed to be easy

Hanson guarantees Easycrete® will retain workability of better than 120 slump for at least 30 minutes* after the concrete arrives on-site.

Applications

House slabs
Paths and driveways
Tilt up panels
Stamped/coloured concrete
All industrial and commercial applications
Pumping applications

For information on the best way to use Easycrete®, talk to your Hanson Customer Service Manager.

* Provided the site is within 30 minutes of the plant. Please check product availability in your local area.

we'll make it happen

Hanson

Liquifill®

Economical, pumpable and flowable.

Go with the flow with Liquifill®, the labour saving cement based alternative to compacted fill. Liquifill® lets one person do the work of two or three when you need to backfill a trench. Use it for all your backfill needs and tricky infill jobs like filling underground tanks.

8 key advantages

1 Speeds backfilling

Backfill with Liquifill® and you can knock off earlier. At 180+ slump, Liquifill® is self compacting which reduces your labour costs.

2 No rollers required

Forget hiring loaders, rollers and compactors. Liquifill® is self compacting so use it in areas out of reach of compacting machinery.

3 Superior stability and resists settlement

Liquifill® is ideal for jobs requiring a stable base. It won't settle or rut under loading. Walk on it within 10 hours. Drive heavy machinery over it within 24 hours.

4 Resists erosion

Liquifill® is far less water permeable than standard fill so it offers superior resistance to erosion.

5 Reduced voids

Use Liquifill® to ensure that buried services are completely and uniformly supported.

6 Increased safety

No need to have your workers in the trench during compaction.

7 Cuts excavation costs

With Liquifill® there's no need to widen trenches to cater for labour and equipment. In most cases it can be excavated at a later date with hand tools.

8 Customised mixes

Liquifill® mixes can be adjusted at the plant to meet a range of specific site applications.

Applications

Backfill
Conduit trenches
Utility trenches
Sewer trenches
Culverts
Inground tanks
Retaining walls

Infill
Disused water pipes
Underground tanks
Abandoned mines
Disused sewers
Manholes

For information on the best way to use Liquifill®, talk to your Hanson Customer Service Manager.

Please check product availability in your local area.

we'll make it happen

Hanson

Technical specifications

Sure-Set®

- Sure-Set® is a guaranteed setting time system for concrete. It is ideal for cold weather applications to reduce setting time and can also be used in warmer weather if set time is important.
- Sure-Set® is a product of Hanson's research and technical design and therefore information on Sure-Set®'s formula/mix designs cannot be disclosed.

How it works

- You place your order and nominate the desired strength and setting time.
- A Hanson representative will advise the appropriate system level (either Gold, Silver or Bronze) dependent on the ambient temperature.

Sure-Set® warranty conditions

1. No water to be added on site.
2. The slump is to be 80mm (±15mm tolerance).
3. The poured surface is to be free of water or ice.
4. The ambient temperature should be 5-35°C for the duration of the pour.
5. Setting time is defined as the time between the last delivery of concrete and "tools off" the slab.

Steelmix™

- To ensure that Steelmix™ meets its design criteria, the following construction requirements should be followed:

Re-entrant corners

- As with any reinforcement for shrinkage, extra bar or trimmer bar is required at re-entrant corners, gully pits and other penetrations.

Ground preparation

- The performance of any ground slab is governed by the sub-base preparation.
- All "soft spots" should be rectified and ground preparation should be carried out as per engineer's specification.

Control joints

- Saw cutting needs to be at least 30% of slab depth. Saw-cut and dowel joint layout as per engineer's specification.
- If saw cutting of joints is elected, then this should occur as soon as practical after the final set (but no longer than 24 hours after the final set).

Concrete and curing

- Attention to detail should be given to vibratory compaction, joints, induced cracking, finishing and curing.

Micromesh®

Technical data

- All components of Micromesh® concrete (excluding bonding monofilaments) meet their relevant Australian Standard.
- Bonding monofilaments used in Micromesh® concrete are manufactured on our behalf and imported. Since there is no Australian Standard for bonding monofilaments, we require our manufacturer to comply with American Standard ASTM C1116.
- ABSAC (Australian Building Systems Appraisal Council Ltd) Approved Opinion has been gained on bonding monofilaments used in Micromesh® concrete. ABSAC appraisals have been carried out on several projects supplied with Hanson Micromesh® concrete.

Soils and subgrades

- It is not recommended to use Micromesh® concrete in slabs and footings (housing or commercial) unless specifically approved by a Design Engineer.
- Micromesh® is not a replacement for structural reinforcement.
- Micromesh® concrete laid on highly reactive soils without steel reinforcing is not recommended. Changes in the moisture content of soils with "H", "E", and "P" classifications are likely to cause cracking.
- Micromesh® concrete without steel reinforcing should not be laid on the following soil types: silts, sandy silts, gravelly silts or diatomaceous soil, lean organic clays, micaceous clays, fat clays or fat organic clays.

Control joints

- Control joints must be incorporated into the slab to initiate cracking. The joint depth must be at least 1/4 of the slab thickness. If saw cutting of joints is elected, then this should occur as soon as practical after the final set (but no longer than 24 hours after the final set).
- Spacing of control joints must not exceed 3 metres. Care should be taken to avoid misaligning control joints. Panels must not exceed a length to width ratio of 2.
- Dowells are to be used at construction joints and also at control joints if the slab contains concrete with shrinkage properties that are likely to cause loss of aggregate interlock in the joints.

Curing

- As with normal concrete, curing is mandatory.

Typical concrete test results

Flexural strength

- No difference in flexural strength between normal concrete and Micromesh®.

Splitting tensile strength

- Slight increase in splitting tensile strength of concrete containing bonding monofilaments.

Compressive strength

- No significant gain in concrete containing bonding monofilaments.

Plastic shrinkage

- A marked reduction in plastic shrinkage of 80% (average) is achieved in concrete containing bonding monofilaments.

Coremasta®

- All components of Coremasta® meet their relevant Australian Standard.
- Coremasta® complies with Australian Standards.
- Coremasta® field and laboratory testing for workability and compressive strength, follow the same Australian Standards as for concrete.
- Coremasta® is a guaranteed product. Assurance is given for compressive strength, quality and performance.
- Coremasta® is supplied to site with a compressive strength of 20MPa at 28 days (unless otherwise specified) and at a slump of 150mm + 30mm.
- One (1) cubic metre of Coremasta® (without waste) will fill approximately 135 standard masonry units 400mm x 200mm x 200mm.
- Coremasta® is a product of Hanson's research and technical design and therefore information on Coremasta®'s formula/mix designs cannot be disclosed.

Easycrete®

- Easycrete® is a guaranteed product and meets Hanson's stringent Quality Assurance system.
- All good concrete recommendations and practices apply to Easycrete® concrete and should be carried out.
- The addition of excess water on-site taking concrete past its design slump will detrimentally affect its strength. Hanson recommends that "no water be added on-site" for all its products and can not guarantee concrete performance if water is added on-site.

Liquifill®

Liquifill® considerations

- Although Liquifill® provides numerous benefits when compared to conventional backfill materials, there are some considerations.
- Light weight pipes, etc. may need to be anchored to avoid floatation. Sand bags placed on the pipes at intervals will be compressed and encompassed by the flow of Liquifill®.
- Consideration to be given to lateral pressures if Liquifill® is required to be supplied with a high flowability.
- Higher strengths will prevent the ease of simple excavation at a later date.
- Due to its flowability, Liquifill® needs to be confined to the area to be filled until some set has taken place (approximately 3 to 4 hours, depending on site conditions).
- Poor or wet weather conditions and/or clay sub-soils will prolong the setting time of Liquifill.®
- Utility lines, such as gas, water, power and telephone, may require a protective cover prior to Liquifill®. This practice or other specified indicators or coloured Liquifill® will give warning to excavators at a later date.
- Some applications at increased depths may require pouring in lifts depending on the formwork and lateral pressures. A period of 12 hours or longer may be required between lifts.
- Liquifill®, when placed in water logged ground or extreme clayey soils, has the tendency to remain in a semi-set state for up to several days. If while in this state, the Liquifill® is sealed, any traffic will likely cause the Liquifill® to expel mix water to the surface beneath the sealer. If there is an urgency for time, contractors may be advised to use some type of lean mix on these occasions.
- Liquifill® at a range of 0.5 to 1.0 MPa has successfully served all applications it has been applied to. It must be remembered that compacted selected fill, undisturbed ground and stabilised sand only achieve strengths of around 0.5 MPa.
- Higher strengths and different slumps are available if required for specific applications.

Remember - Liquifill® is simply a flowable fill or a controlled low strength material (CLSM) - not concrete.