



EVOLUTION™ ULTIMATE

Evolution™ Ultimate offers the best possible specification in high performance self-compacting concrete with high strength and fluidity that allows concrete to flow through complex structures or detailed formwork with outstanding results. Wherever design challenges the concrete performance with congested work areas or complex reinforcement, Evolution™ Ultimate is the natural choice.

Where to use Evolution™ Ultimate

- All challenging specialist applications
- Complex reinforced formwork
- Bespoke design solutions

Advantages of Evolution™ Ultimate

- Easily placed and economical
- For all applications requiring top performance and finish
- Reduced labour required for placing, levelling and finishing
- Suitable for challenging designs and complex formwork
- Enhanced workability and excellent early strength
- Self-levelling reducing placing time
- No compaction necessary
- Reduced noise and health & safety issues
- Sets with a smooth surface that requires minimal further finishing*
- Meets or exceeds the relevant British and European Standards

A cost competitive solution

The product cost of high performance concrete can be more than offset by significant productivity and performance gains. Because Evolution™ Ultimate can flow from a single point (note: on large pours more than one point may be required), is self-levelling, self-compacting and eliminates the need to hire expensive vibration equipment, the cost of placing the concrete can be significantly reduced. In addition to the cost benefits there is also the improved on-site health and safety to take into consideration.

About Evolution™ High Performance Concrete

Self-compacting concrete is gradually becoming the preferred formulation worldwide for many applications such as foundations, floors, walls and complex bespoke structures because it combines great strength and superb finishes with the opportunity to make serious project productivity improvements. The Evolution™ range fine tunes the high performance concept to provide outstanding solutions for specific applications.

Evolution™ is a high performance, self compacting concrete brand from CEMEX the world's leading suppliers of readymix concrete, and one of the largest producers of aggregates and cement. With operations in over 50 countries CEMEX is a growing global building solutions company pursuing innovative industry advancements whilst promoting a sustainable future

* N.B. Dependant on quality formwork and placement



Technical Specification

Characteristic strength	As specified
Technical category	Self-levelling and self-compacting high performance concrete formulated to your specification.
Material flow behaviour	SF2+/VS1 or SF3/VS1*
Other characteristics	Can be made watertight, pumped, fibre reinforced, and mixed to high strength.
Applications	All challenging specialist applications and formwork.

* Where pump applications are required please note material flow behaviour may need changing

Specifications and Standards

All CEMEX Readymix products meet or exceed the relevant British and European standards. Certification is available on request.

Delivery

The standard CEMEX Readymix truck mixer is ideal for straightforward deliveries to site, always ensure the area has suitable vehicle access and that sufficient labour is organised to handle the order. Where access or ground conditions may be a problem contact your local sales office well in advance.

CEMEX Readymix also offers a range of flexible options for concrete delivery, including pumping.

A sales directory service and estimating guide are available on our website www.cemex.co.uk

Health and Safety

The elimination of vibrating equipment improves the working environment wherever Evolution™ concrete is being placed, by reducing the exposure of workers to noise and the risk of ‘vibration white finger’ caused by vibration. These improved practices and health & safety benefits, make Evolution™ an attractive solution for both precast concrete and civil engineering design and construction.

Contact with concrete may cause irritation, dermatitis or severe alkali burns. There is serious risk of damage to the eyes. Wear suitable waterproof protective clothing, gloves and eye/face protection. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. After contact with skin, wash immediately with plenty of clean water. Keep out of reach of children. Contains Chromium (VI), which may cause an allergic reaction.

For a detailed datasheet please visit the health & safety section of our website www.cemex.co.uk

FAQ's

Q. What curing is required?

A. Evolution™ Ultimate must be properly cured to control plastic shrinkage cracking. For example in high rise ensure there are wind deflectors around the side of the concrete to prevent wind blowing directly across the surface. Also use a spray on curing membrane applied in accordance with the manufacturers recommendations.

Q. Can I pump this concrete up high rise and what control measures do I need to take to reliably pump this concrete?

A. Evolution™ Ultimate is ideal and can be used extensively for pump applications, however it will compact in the lines if left for any period of time. Consequently good pump practice is very important and if there is a delay between loads then the pipework should have the “pig” put through. Any serious pump application must use as large a pump as possible, and of the positive displacement type, to apply minimum energy to the concrete. Auger or small bore, unless for very short distances, are not recommended. If application demands high head pump placement, please contact us so we can ensure the product supplied is suitable for the application.

Q. Does the formwork need to be specially designed?

A. The formwork needs to be liquid tight and capable of sustaining nearly hydrostatic pressure as during placement the complete section could be fluid concrete. The formwork should be as permeable as possible. If using steel then correct type of release agent must be used and applied as thinly as possible. The formwork faces must be kept spotlessly clean if optimum finish is required.

Q. What placement controls are needed?

A. Evolution™ Ultimate must be placed and not allowed to free-fall into formwork, particularly if a quality finish is required. Tremmie pipes should be used to about 10cm above the concrete surface and the concrete placed in a smooth continuous pour allowing air to be pushed to the sides of the moulds and allowed to escape upwards.

CEMEX UK and Sustainability

CEMEX UK strives to be socially, economically and environmentally responsible in everything we do. For example, we're aiming to reduce CO₂ emissions by investing in trials of a sustainable fuel that can replace fossil fuels by up to 30%. ‘24/7 Load’ delivers non-urgent materials out-of-hours, further helping to reduce road congestion. We also use materials from other industries that would otherwise go to landfill.

To drive these activities we have a commitment to data collection and the measurement of environmental performance. We also restore land used for extraction and recycle water used for stone washing and aggregate reclamation. It all adds up to industry leading environmental performance.

The information contained in this publication was accurate at the time of production, however CEMEX reserves the right to introduce modifications or changes to detail at any time, as part of a policy of continuous improvement.

For more information contact the Evolution™ Enquiry Line

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Or visit our website at

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