

BETTER. BY A DISTANCE.

PREMIUM PRODUCTS AND
SERVICES FOR A SAFER AND
MORE PRODUCTIVE SITE

evolution **Promptis**



**EXPERTS IN
MORTAR™**



ENSURING A **SAFER SITE.**

With safe working on site paramount, the ability to offer products and services that can help minimise physical distance, reduce additional materials, labour or equipment on site whilst maximising productivity will be essential.

SAFETY | EFFICIENCY | SUPPORT

The following range of CEMEX products are optimised to meet the challenge of safe site working requirements and guidelines.

Better. By a distance.

This guide provides **5 KEY AREAS** to products and services that will help support a safer and more productive site:

- 1** Reduce equipment and labour on site or working in confined spaces, with easy-to-place products

See pages 05-09



- 2** Eliminate need for additional materials and manual handling/storage

See pages 10-13



- 3** Save time and reduce turnaround on construction projects

See pages 14-15



- 4** One-person operating silos and less material/waste on site

See pages 16-19



- 5** Work remotely with digital tools

See pages 20-21



1 SELF-COMPACTING/ SELF-LEVELLING CONCRETES

Self-compacting concrete is a highly flowable, non-segregating concrete that can easily be placed, fill formwork, and encapsulate even the most congested reinforcement by means of its own weight, with little or no vibration.

Self-compacting concrete is ideal for use in casting heavily reinforced sections or placement where there can be no access to vibrators for compaction and in complex shapes of formwork which may otherwise be impossible to cast.

Since self-compacting concrete 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 use vibration equipment, it can be placed with less labour and in a shorter time than traditional placing techniques.

Primary benefits & advantages:

- Easily placed and economical
- Reduced labour required for placing, levelling and finishing
- Self-levelling properties help reduce placing time
- No compaction needed – reduced noise and health & safety issues

Additional benefits:

- Enhanced consistency and excellent early strength
- Meets or exceeds the relevant British and European Standards
- Sets with a smooth surface that requires minimal further finishing

FOUR EVOLUTIONARY CONCRETE SOLUTIONS

Evolution™ is a branded high-performance concrete. Its self-levelling, self-consolidating properties allow it to be placed fully compacted without segregation and with no vibration.

evolution | foundation

Flows easily into foundations

A high-performance self-levelling concrete with exceptional fluidity.

These properties make it the ideal concrete for laying foundations. It can be poured into trenchworks from a single point. Because it is self-compacting, there is no need for further vibration and **Evolution™ Foundation** is ready to take brickwork in 24 hours.

Typical installations:

- House, garage, conservatory and wall foundations
- Commercial mass foundations
- Industrial trench fill



Scan to find out
more about our
EVOLUTION RANGE



evolution | flooring

Flows across floors

A high-performance self-compacting, self-levelling concrete with exceptional fluidity.

A high-performance self-compacting, self-levelling concrete with exceptional fluidity. It delivers an excellent finish to large areas of concrete with minimum effort. The advantages of **Evolution™ Flooring** include: no need for vibration, easily pumped and requiring less labour. **Evolution™ Flooring** is also a flexible application that is easy to place and produces a quality surface finish reducing the need for power floating in many applications.

Typical installations:

- Domestic floors and basements
- Commercial floor slabs
- Industrial floor slabs



CASE STUDY

Customer **Crest Nicholson** | Sector **Housing**



Roman Way, Hereford

A large housing development in Hereford, Gloucestershire had a requirement for a large volume of self-compacting concrete to be used for oversites on multiple constructions across this sizeable site.

Crest Nicholson sent an enquiry to CEMEX looking for a suitable self-compacting concrete, **Evolution Flooring™** was designed to the customer's satisfaction and over 300m³ was supplied, giving a quick, consistent and productive solution.

Flows into walls and columns

A high-performance self-compacting, self-levelling concrete with fluidity characteristics that make it the ideal concrete for structural elements.

It can be poured into walls, columns and in precast applications from a single point, reducing construction time. **Evolution™ Structural** produces elegant structures of exceptional strength that need very little, if any, further finishing.

For bespoke designs contact our Technical Department

Typical installations:

- Walls
- Suspended floors
- Columns and beams
- Basements
- Formwork
- Precast



Flows through tight spaces

The highest possible specification in high-performance, self-compacting, self-levelling concrete.

High strength and a fluid form allows the concrete to flow through complex structures or detailed formwork with outstanding results. Wherever design challenges the performance of concrete with congested work areas, complex reinforcement and convoluted formwork, **Evolution™ Ultimate** is the natural choice.

For bespoke designs contact our Technical Department

Typical installations:

- Specialist structures
- Innovative and bespoke designs
- Complex formwork



CASE STUDY

Customer **Kier Construction** | Sector **Infrastructure**



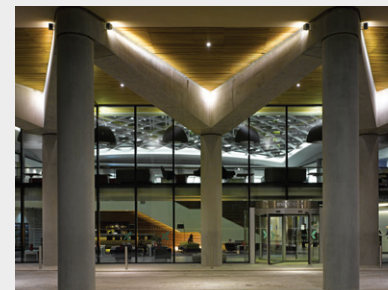
Parson Bridge, Bristol

Kier was tasked with constructing a large bridge for Network Rail in Bristol. This bridge ran around the south and west of Bristol city centre between the A370 Long Ashton Bypass and Hengrove Park.

Kier wanted to look at using self-compacting concrete for two large abutments. CEMEX suggested **Evolution Structural 45** and after seeing the cube results from a similar project Kier agreed. The supply ran smoothly with major productivity gains, and as a result Kier has begun to integrate Evolution into its operations more regularly.

CASE STUDY

Customer **Laing O'Rourke** | Sector **Commercial**



DoubleTree, Hilton Hotel

The hotel was designed to complement this historically significant part of the City of London. Its secondary objective was to achieve the highest possible sustainability credentials, delivered to a tight programme with a concrete that could not only perform well, but was aesthetically pleasing. CEMEX's technical staff had early involvement with designing the concrete for various applications including the grade **50/60 Evolution Ultimate**. The self-compacting characteristics of Evolution made it perfect for the task of infilling the narrow gaps, whilst speeding up the process by removing the need for compaction.

2 FIBRE REINFORCED CONCRETE



There are a blend of fibre reinforced ready-mix concretes that can help support a more productive, safer, and less congested working site ranging from simple polypropylene or cellulose micro fibres to engineered macro fibre and steel fibre solutions.

Micro fibre solutions

There are many features of micro fibre reinforced concrete, however the main one is the reduction or elimination of crack control steel mesh. This provides a number of benefits, including a reduction in material delivered, stored and handled on site and the minimisation of labour required for cutting and placing steel reinforcement. In addition the use of micro fibres reduces the incidence of plastic shrinkage cracking.

Primary benefits & advantages:

- No requirement for crack control steel mesh, reducing deliveries and storage
- Reduced site labour requirement for on-site handling and cutting of steel reinforcement
- Concrete placement and crack control in ONE operation
- No delays to fast track schedule
- Easier positioning of joints

Additional benefits:

- Cost-effective alternative to conventional steel mesh reinforcement, reducing project costs
- Reduced plastic cracking
- Hard wearing – impact and abrasion resistant
- Enhanced surface finish
- Longer lasting concrete
- Improved durability & reduced permeability
- Can be used in conjunction with pumping services

Scan to find out more about our FIBRE REINFORCED CONCRETE RANGE



CEMEX Advanced concretes are pioneering products that combine micro and macro-synthetic fibres to give a new level of performance in reinforcement.

CEMEX Advanced Flooring and CEMEX Advanced Paving are pioneering products incorporating a three-dimensional system of either macro-synthetic or steel fibre reinforcement that take concrete reinforcement to a new level of performance reducing or even eliminate the need for traditional steel reinforcement.

Benefits & advantages:

- Concrete and reinforcement is placed in one operation, reducing labour and speeding up construction times
- Concrete is supplied with the exact amount of reinforcement that is required (no wastage)
- Can show an overall cost saving per square metre compared to concrete placed with traditional steel mesh reinforcement
- Reduces the need to store, cut, place and fix steel reinforcing mesh on site
- Provides resistance to cracking and improves impact and abrasion qualities
- Can be pumped or discharged directly into place where access is available

Scan to find out more about our ADVANCED FIBRE REINFORCED CONCRETE RANGE



High-performance fibre reinforced concrete – bespoke concrete design solutions for both internal and external floor slab applications.

High-performance concrete incorporating a three-dimensional system of either macro-synthetic or steel fibre reinforcement, which reduces the risk of cracking, increases impact/shatter resistance, improves surface durability and reduces long-term maintenance costs.

Applications:

- Internal and external ground supported slabs
- Heavy duty floors with high abrasion risk
- Recycling plants
- Large plant and machinery yards
- Docks and maritime facilities
- Military sites



CEMEX Advanced Beam & Block MF or SF are tailor-made, high-performance fibre reinforced structural concrete toppings.

This eliminates the need for mesh reinforcement, minimises labour, decreases construction time and reduces the risk of cracking.

Applications:

- Traditional Beam & Block floors
- Insulated Beam & Block floors



CEMEX Advanced Flooring is a carefully selected combination of fibre reinforcement, combined with an expert concrete mix design – which provides a unique mesh-free concrete, designed specifically to meet the demands of internal ground-supported floor slabs.

Applications:

- General industrial flooring
- Power floated flooring
- Garage flooring
- Workshop flooring
- Domestic flooring



A carefully selected combination of fibre reinforcement, combined with an expert mix design – which provides a unique mesh-free concrete, designed specifically to meet the demands of external ground-supported slabs.

Applications:

- External ground-supported slabs (pavements, yards and hard standings)
- Farm yards and roadways
- Car parks
- Domestic driveways



CASE STUDY

Customer **Laing O'Rourke** | Sector **Healthcare**



Glan Clwyd Hospital

The specification recommended the use of steel mesh to provide levels of reinforcement required for an internal ground floor slab extension to the A&E Department. Through the use instead of **Advanced Flooring 150**, CEMEX were able to offer a supply solution reducing health and safety risk, whilst offering significant cost savings and providing the same performance as steel mesh. Over 2 days CEMEX delivered 200m³ of **Advanced Flooring** mix, once on site it was pumped into position and then power floated. The customer was impressed with the ease in which the concrete was laid, and the finish achieved on the slab.

CASE STUDY

Customer **Trell Contractors** | Sector **Commercial**



Car park unit

Trell Contractors wished to utilise a 252 steel/wire mesh in conjunction with concrete to reinforce the construction of this large car park on a commercial installation on a project in Norfolk.

However, **Advanced Paving** was used instead by the customer, as the cost/time/labour savings of using Advanced proved very attractive on the project. A total of 150m³ was supplied to the site, providing an all-round paving solution without the need for complicated steel reinforcement or additional labour to cut and place it.

3 RAPID HARDENING CONCRETE



Scan to find out more about our **RAPID HARDENING CONCRETE RANGE**



When there is a need to be on and off the site or project quickly or deadlines are a major factor, then a rapid hardening concrete can help save valuable time during construction.

Rapid hardening concrete has similar characteristics to conventional concrete but it can reach accelerated early strength after just six hours while still maintaining initial flow properties and consistency for up to 120 minutes. Formwork can be stripped after only six hours (subject to mix design and guidance), saving time and money. It is an ideal solution for projects such as road and rail renovation, where the use could help minimise traffic restrictions.

Primary benefits & advantages:

- **Fast formwork removal leading to increased productivity**
- **Cost savings**
- **Reduced labour**
- **Reduced rental for construction equipment**
- **No more delays on-site**
- **Rapid construction programmes are easily achieved**
- **The concrete is easy to compact and finish**

Additional benefits:

- *Ultimate design strengths are normally achieved in less than seven days*
- *Rapid strength development allowing foot traffic within six hours and vehicle traffic after 24 hours*
- *Faster slip form casting times*
- *High early strengths allowing formwork removal six hours after delivery*
- *Concrete poured in winter achieves the required strength faster to avoid frost damage*
- *Can be designed to achieve a range of end performance characteristics*
- *Consistency maintained for >90 minutes*
- *Suitable for pumping*

For bespoke designs contact our Technical Department



Save time on site with Promptis

The properties of **Promptis** are the result of a carefully selected combination of specialist admixtures in-conjunction with expert mix design, providing a unique concrete solution that existing products cannot provide.

Applications:

- **Fast de-moulding:** in buildings – columns, walls, beams, slabs, panels
In civil engineering – high walls, tunnels, roads, rail and crane bases
- **Easy handling:** in precast facilities – beams, panels, specific elements
- **Renovation and repair:** an ideal solution where there is limited time to carry out renovation or repair of structures, slabs or pavements in a wide variety of applications

CASE STUDIES

Customer **Severn Trent Water** | Sector **Utilities**



Frankley Water Treatment Works

The client needed a concrete for part of work to repair and replace water main supplies into Birmingham. The was a requirement for the concrete to achieve 20N/mm² in less than 24 hours to minimise disruption to water supply.

27m³ of **Promptis 50** was supplied and reached the required strength in 15 hours, allowing the project to proceed on time.

Customer **Fortel Construction** | Sector **Retail**



Arla Foods

Fortel Construction required a high early strength concrete for the external placing around a new food distribution warehouse facility. Over 500m³ of **Promptis 40** was supplied to the building apron and 36 hours after the concrete was poured the site was able to trade.

4 FACTORY PRODUCED MORTARS

Factory produced mortars offer clean, efficient production with reduced wastage and increased productivity on site. The dry silo systems also reduce manual handling and the risk of injury in production, for improved health and safety.

CEMEX - Experts in Mortar™ offer a range of flexible solutions suitable for any site requirements.

DRY MORTAR – SILO

Manufactured under a third party accredited factory production control system, the **CEMEX Dry Silo Mortar system** uses the latest technology to provide you with a convenient mortar batching facility, with appropriate colour and consistency.

CEMEX **Dry Silo Mortar** is made up of precisely weighed materials to produce the best quality mortar. Prepared in purpose-built production units, the mortar has a guaranteed strength and controlled air content. The system also accurately monitors the addition and mixing of pigments for consistent colour throughout the mix. Masonry mortars are manufactured to the requirements of BS EN 998-2 and are registered under the CE marking scheme.

CASE STUDY

Customer **Irvine Whitlock** | Sector **Residential**



Wembley Park redevelopment

CEMEX was approached by Irvine Whitlock to be the supplier of 1,500 tonnes of Dove White Dry Silo Mortar for the redevelopment of Wembley Park. CEMEX was able to provide a durable and resistant mortar, that met both Irvine Whitlock's short and long term needs. Overall, silos were considered the best option as there is little wastage produced and the process is quicker using this product. CEMEX ensured the colour was right the first time, every time. This avoided any extra costs and reduced time. The coloured mortar matched the existing buildings and produced the correct architectural contrast to the surrounding area.



Scan to find out more about our **FACTORY PRODUCED MORTARS**

EXPERTS IN MORTAR™

Primary benefits & advantages:

- Reduced delivery and storage of other materials to site
- Reduced manual handling – single person operation and easy to operate
- Clean efficient production and reduced wastage

Additional benefits:

- Consistent mortar quality
- Full range of mixes, strength classes and colours
- Instant availability
- Complies with relevant British and European standards





WET MORTAR – READY-TO-USE

From a small domestic extension to a major multi-storey development, **CEMEX Wet Mortar – Ready-To-Use** is ideally suited to every application. With a proven track record of delivering consistently high quality factory produced mortar and excellent support, **CEMEX Wet Mortar – Ready-To-Use** is the flexible option.

Ordering could not be simpler through our dedicated sales support teams. And even though our **Wet Mortar - Ready-To-Use** is guaranteed to last two working days, as little as one cubic metre can be ordered with only 24 hours notice. It can also be delivered direct to site, avoiding interruption to work schedules, either ready to discharge into site containers or disposable containers for smaller applications.

Wet Mortar - Ready-To-Use requires no further mixing and has excellent workability retention reducing the need for on site mixing of mortar. Our skilled specialists understand how to maximise material usage and minimise waste and will support you with advice on retardation, ordering and delivery schedules.

With a dedicated logistics team fully trained to understand the needs of our mortar customers, we are experienced in delivering to all site situations, including built-up inner-city areas.

DRY BAGGED MORTAR

Dry Mortar Bags are the ideal solution for smaller sites that do not have the scale for a silo but are still looking for a factory produced mortar that is easy to mix on-site and produces a consistent and durable material.



CASE STUDY

Customer **Freeman & Hook** | Sector **Residential**



Hampden Fields, Aylesbury

The selection of high-quality products was a top priority for the construction of this residential development, comprising of 82 units, phased over two years. CEMEX supplied 8,000 tonnes of Dry Silo Mortar and Ready-To-Use Mortar. Dovetailing these two products provided a number of benefits. In addition to having the flexibility to adapt to the changing demands of the project, the customer received a seamless supply of mortar, without the need to establish contact with a new supplier at this critical stage in project, thus having assurance of both the quality of product and service levels received.

CASE STUDY

Customer **Rydon Construction** | Sector **Residential**



Packington Estate redevelopment

CEMEX was approached to be the sole supplier of 5,000 tonnes of Dry Silo Mortar for this redevelopment. CEMEX was able to provide a durable, high-quality and consistent mortar. DSM was used for 90% of the job to maintain productivity as well as bagged products. CEMEX's Ready-To-Use Mortar was also utilised at the start and final phases, especially when main water, electric and silo concrete pads were not in place or when small volumes of non-standard mixes were required. This solution meant there was no noise pollution caused by heavy machinery early in the morning resulting in minimal impact on the community.

5 SERVICES - DIGITAL, PAPERLESS & REMOTE WORKING



YOU CAN COUNT ON CEMEX GO TO SUPPORT YOUR BUSINESS:



ORDER ONLINE – anytime, anywhere on any device (even from the comfort of your own home)



REAL-TIME TRACKING of your order



24/7 AVAILABILITY of your transaction records and delivery documents – go paperless today!



MANAGE AND AMEND ORDERS in advance – adapt to project changes before delivery arrives



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Make better business decisions

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CONCRETE PUMPING

The majority of CEMEX ready mixed concretes are suitable for pumping and CEMEX can now provide a pump service from certain locations so please ask for more details (or we can advise on local providers).



Benefits of using a concrete pump on-site include:

- Helps increase project productivity and completion time
- Can minimise site congestion and reduce number of workers in any given areas
- You can get concrete to difficult to access areas of the construction site
- Pipelines can be easily positioned where you need them to go
- It provides a steady work pace, increasing productivity
- It is effective and economical for various sized projects, including residential and commercial
- Several pumps can pour simultaneously for larger projects

TECHNICAL SERVICES & PRODUCT SUPPORT HELPLINE

For further information or advice on any of the products or services detailed in this guide, we're here to help support your project or site with safer or more productive ways of working. Please contact PRODUCT SUPPORT on:



0800 667 827



GB-enquiries@cemex.com



@CEMEX_UK



Scan to find out more about our **TECHNICAL SUPPORT**

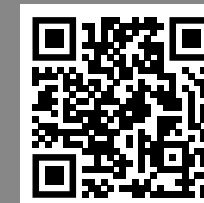
CONSTRUCTION AS A SAFE AND ESSENTIAL INDUSTRY – CEMEX PROTOCOLS



In accordance with global, national, and local health authority recommendations, CEMEX has developed and implemented strict safety protocols throughout its operations.

These procedures are designed to protect our employees, communities, and customers. We will continue to update our processes and procedures to adhere to local and international regulations and strengthen our special protocols as required.

CEMEX has implemented 50 new hygiene and safety protocols from product delivery to document handling based on national and international guidelines established by experts in the field, such as the World Health Organization (WHO), and in strict adherence to local health regulations.



Scan to find out more about **CEMEX PROTOCOLS**

This product range can be found in the following resources and supported with an approved CPD presentation.



✓ **IMPROVE PERFORMANCE**

✓ **SAVE TIME**

✓ **REDUCE MATERIAL COST**

✓ **INCREASE QUALITY**

All Admixtures are produced in accordance with BS EN 934 and are CE marked under the BSI Certificate of Factory Production Control. In addition, the UK admixture production facility operates to BS EN ISO 9001: 2000.

For more information visit:
cemex.co.uk/admixtures or email:
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