

**EcoCrete®**

**LOW CARBON CONCRETE WITH  
UP TO 85% LESS CO<sub>2</sub> FOR A  
MORE SUSTAINABLE FUTURE**





# ABOUT HANSON

Hanson UK produces a range of essential materials to build our future, including cement, aggregates, ready-mixed concrete and asphalt.

We take our responsibility to reaching net zero carbon very seriously and are committed to fulfilling our role in meeting the UK government's ambitions. Our parent company, Heidelberg Materials, has signed SBTi's Business Ambition for 1.5°C and joined the UN's Race to Zero campaign.

Our route to decarbonisation has been ongoing for many years and we have made significant headway, including reducing our CO<sub>2</sub> emissions in the UK by more than 50% since 1990. We are already the largest producer of low carbon concrete in the UK and have a roadmap in place to help us achieve net zero by 2050.





# CONCRETE

Ready-mixed concrete is the most widely used building material in the world: it is essential to society and a cornerstone of our built environment.

Concrete is flexible, versatile, durable and strong, and is used in a wide variety of applications including housing, commercial buildings, road building and essential infrastructure projects such as bridges, tunnels and airports as well as energy and water plants.

It also absorbs CO<sub>2</sub> throughout its life and is 100 per cent recyclable, contributing significantly to the circular economy and providing materials with lower embodied carbon.

## THE ECOCRETE® RANGE

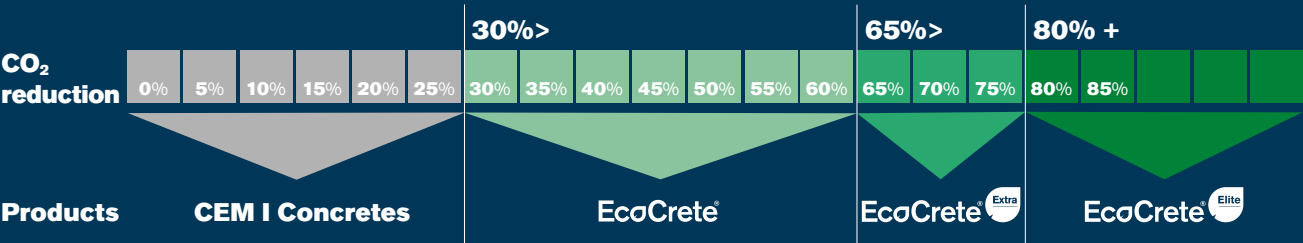
Hanson has developed its EcoCrete® range of low carbon concretes to make it easier to access low carbon concretes. EcoCrete® reduces the CO<sub>2</sub> emissions associated with standard CEM I concrete by up to 85 per cent, helping contractors and clients meet their carbon reduction targets.

They contain Regen GGBS (ground granulated blastfurnace slag), a by-product of iron-making, as a replacement for some of the cement content in the concrete. Using GGBS reduces the embodied CO<sub>2</sub> in a concrete mix by around 780kg for every tonne of CEM I Portland cement (PC) it replaces.

It also increases the long-term durability of structures, conserves natural resources for future generations as it does not require the quarrying of materials and prevents the slag being disposed of as landfill.

There are three products in the range:

- EcoCrete®:** reduces CO<sub>2</sub> by 30-64 per cent compared with CEM I concrete
- EcoCrete® Extra:** reduces CO<sub>2</sub> by 65-79 per cent
- EcoCrete® Elite:** reduces CO<sub>2</sub> by up to 85 per cent



All products offer the high quality and reliability features associated with our ready-mixed concrete but with the benefit of significantly reducing CO<sub>2</sub> emissions. Wherever possible we use recycled water to produce EcoCrete®, adding to its sustainability credentials.

The input values we use to calculate the CO<sub>2</sub> emissions of a concrete mix are externally verified and we can use this data to support our customers with a kg/CO<sub>2</sub>/m<sup>3</sup> indication for each mix. Where required, an indicative EPD\* can be generated using lifecycle assessment tools aligned with the product category rules for Type III construction products to EN 15804. These detail the CO<sub>2</sub> emissions for a concrete mix and provide further detail of where the CO<sub>2</sub> emissions occur along the value chain.

\* Indicative EPDs are not externally verified





**Sustainable construction with up to 85% less CO<sub>2</sub> emissions**

**Benefits:**

- Reduces the carbon emissions associated with concrete by between 30-85%
- Easy to use and place
- Suitable for use in all applications, including reinforced and unreinforced
- Unchanged construction process
- Complies with BS 8500 and BS EN 206-1
- Creates concrete with a lighter, more aesthetically pleasing colour
- 100% recyclable at end of life, contributing to the circular economy
- Available nationwide from our network of static and mobile ready-mixed concrete plants







# ECOCRETE® IN PRACTICE

## Sea wall defences, Dawlish, Devon

The Great Western Main Line is the only railway line running to the south west of England and is vital for transport, tourism and freight movements. Following the collapse of part of the sea wall in 2014 due to storm wave damage, several other sections were identified as needing urgent repair.

Working with main contractor BAM Nuttall, we designed, developed and delivered innovative concrete mixes to meet the customer's needs, including a low carbon, pumpable concrete (EcoCrete® Elite).

Jack Brookes, site agent, BAM Nuttall, said: "From the earliest phase of this project, we considered how this scheme can limit its environmental impact without compromising the strength and resilience of the structure.

"We identified Hanson's EcoCrete® Elite as an innovative product that could help us to reduce our carbon impact by two-thirds while retaining the strength of traditional concrete. We worked closely with Network Rail to ensure that the material is approved for use on Britain's railway and look forward to seeing it being used in more major civil engineering schemes."

The use of EcoCrete® Elite as an alternative to the original specification reduced carbon emissions from 203kg per cubic metre of concrete to 77kg, saving 125kg of CO<sub>2</sub> for every cubic metre supplied.

A number of laboratory trials were conducted to ensure the product met the design criteria ahead of both plant and site trials which ensured the performance of the concrete could be replicated in a live environment.

The Dawlish project proved that low carbon concrete mixes can be successfully developed and applied in technically challenging projects.



## CASE STUDIES

Do you want to see how our products have been used in a range of different projects and applications? Take a look at our latest case studies at [hanson.co.uk/sector-case-studies](https://hanson.co.uk/sector-case-studies)

## WE ARE HANSON

Hanson UK is a leading supplier of heavy building materials to the construction industry. We operate around 300 sites in the UK and make 6,000 deliveries a day. The business is structured into four main divisions – cement, concrete, aggregates and asphalt:

**Hanson Cement** is a leading manufacturer of cement, both in bulk and in bags, and produces Regen GGBS (ground granulated blastfurnace slag) – a low-carbon cement replacement used in ready-mixed and precast concrete.

**Hanson Concrete** is one of the UK's largest suppliers of high quality ready-mixed concrete from a national network of static and mobile production plants.

**Hanson Aggregates** produces and distributes aggregates (crushed rock, sand and gravel) from a network of over 70 quarries, depots, and wharves. The division includes Hanson Aggregates Marine, Europe's largest producer of marine-dredged sand and gravel.

**Hanson Asphalt and Contracting** manages asphalt production sites and a national road surfacing and contracting business. It includes Midland Quarry Products, an aggregates and asphalt business based in Leicestershire.

We are part of the Heidelberg Materials Group, one of the world's largest building materials manufacturers, which employs around 54,000 people at more than 3,000 production sites in over 50 countries on five continents.



# CONCRETE SOLUTIONS

Hanson offers a wide range of concrete solutions to suit every project and application. Whether you're faced with difficult ground conditions, difficult applications or difficult access, we can provide an answer. All of our concrete solutions are available in low carbon options.

**Colourcrete:** a range of coloured concrete that can add a whole new dimension to your project.

**EasyFlow:** a free-flowing, self-compacting concrete, which is quick and easy to place. It offers huge benefits and cost savings by allowing placement of concrete in difficult situations.

**EasyPile:** a concrete range offering the ideal solution to many of today's engineering challenges facing the piling and foundation specialist.

**EcoCrete:** our high quality, lower carbon concretes designed to help customers meet their carbon reduction targets.

**Farming concrete:** a range of hardwearing, highly durable concrete ideal for farming and agricultural uses.

**FastTrack:** a range of high early-strength concretes, which speed up construction by allowing quick release of formwork, saving time, energy and money.

**Fibrecrete:** a polypropylene fibre-reinforced concrete, which is quick and easy to use and provides enhanced structural performance.

**Powercrete:** a robust, high-performance, heat-conducting concrete, used as a bedding and infill material for underground HV and UHV cabling to increase the efficiency of power transmission networks. It can be used with CableCem, a heat-conducting grout developed as an infill material for jacket tube systems.

**Watertight:** a specially designed concrete which includes a pore blocking agent and powerful new generation superplasticiser to provide extremely low permeability and create a waterproof structure.

Hanson Concrete also has a proven track record in developing and producing bespoke formulations for specific engineering requirements.

Our national laboratory is fully equipped to provide a range of testing services in accordance with British and European Standards. We offer on-site sampling and testing to help demonstrate compliance with your concrete specification requirements, as well as a collection and testing service for site manufactured samples.







## Health and safety

Hanson's workforce is committed to achieving the highest standards of health, safety and welfare for our colleagues, customers and the general public. Right through the business, health and safety is a top priority and our target is zero harm.

We focus on the physical and mental health of our workforce and are a corporate partner of Mates in Mind, an industry charity campaigning for greater awareness and support for mental health issues.

## Plant network and distribution

We have a comprehensive UK-wide network of concrete production sites that enable us to supply contracts of all sizes while minimising transport costs and ensuring the efficient transfer of our materials.

We have invested in 180 new eight cubic metre capacity truck mixers, which offer increased capacity, reducing lorry journeys, and improved safety and efficiency. Our Supamix mini-mix operation offers small volumes of concrete from 0.5m<sup>3</sup> to 3m<sup>3</sup> and is suitable for sites with

restricted access. It is available to customers within a 20-mile radius of our 21 Supamix plants across the North East, Yorkshire and Cumbria.

## Social value

We are committed to meeting our responsibilities as global citizens and champion the local economy and support communities with donations of materials, time and money. Our social value policy, along with our sustainability policy, outlines our approach to sustainable procurement and corporate social responsibility.

## Technical support

Our technical team is on hand to ensure you specify the right EcoCrete® product for your project. We also offer the Hanson Intelicrete maturity system which provides wireless concrete monitoring for temperature and strength gain to allow fast track construction when using low carbon concretes.

Find out more at:

T: **0330 123 4535**

E: **concrete@hanson.com**



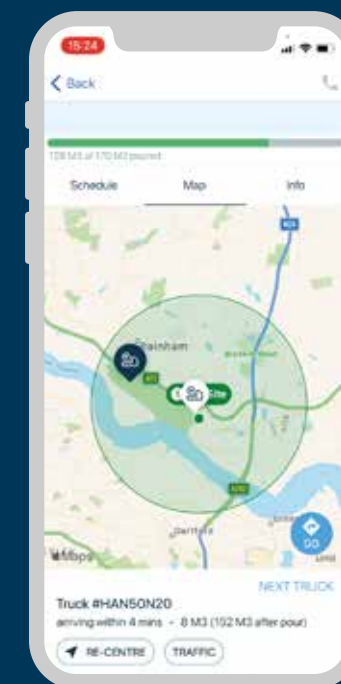
# MANAGING AND TRACKING DELIVERIES

Our OnSite app has been developed to allow customers to take control of their concrete deliveries and it:

- Allows real-time tracking of concrete deliveries
- Provides push notifications when orders are despatched
- Allows customers to view current orders placed for delivery within the next seven days
- Helps customers manage their sites efficiently and effectively
- Is free to download on iOS and Android



Learn more about our digital tools at  
<https://www.hanson.co.uk/en/digital-solutions>





# SALES TEAM

To place an order or discuss your ready-mixed concrete needs, contact your local member of our experienced sales team by visiting [hanson.co.uk/concrete-area-sales-maps](https://hanson.co.uk/concrete-area-sales-maps) or call/email the regional sales offices below:

Region	Telephone	Email address
Scotland	0330 123 4627	concretescotland@hanson.com
North East	0330 123 4628	concretenortheast@hanson.com
North West	0330 123 4629	concretenorthwest@hanson.com
Central West	0330 123 4631	concretecentralwest@hanson.com
Central East	0330 123 4632	concretecentraleast@hanson.com
South West	0330 123 3406	concretesouthwest@hanson.com
South Wales	0330 123 3403	concretesouthwales@hanson.com
South Central	0330 123 4633	concretesouthcentral@hanson.com
South East	0330 123 4634	concretesoutheast@hanson.com
London	0330 123 4635	concretelondon@hanson.com

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