SUSTAINABLE CONSTRUCTION STARTS HERE
Concrete is the most reliable and widely used building material in the world, with a whole host of advantages. Technical benefits such as stability, heat and fire protection mean people choose it over and over again for today’s ever-improving infrastructure and impressive buildings. That’s why, as the demand for more sustainable solutions and developments in research increases, we’re on-hand offering a comprehensive range of products to meet the evolving needs of our customers - without compromise.

MEETING UK TARGETS

In 2019, the UK agreed a ground-breaking target of net zero carbon emissions by 2050. Putting clean growth at the heart of the country’s industrial strategy, this ambitious target could change how we live and work for generations. But to achieve this, businesses, local authorities and households will all need to make changes.

Part of the MPA (Mineral Products Association), UK Concrete have taken it one step further with a ‘beyond net zero’ framework. The roadmap aims to remove more carbon from the atmosphere than the industry emits using existing and emerging technologies. Aggregate Industries are here to support that roadmap. Our vision is to create a more sustainable future, through our people, products and solutions - committing to supporting targets through the development of low carbon products.

WHY WE’RE THE PLACE TO BEGIN

SUSTAINABILITY FROM CRADLE TO GATE

From the very beginning of the manufacturing process, we make sure raw materials are sourced as responsibly as possible.

A nationwide network of plants and a robust logistics system, including rail and barge, means we can transport materials across the country in a more environmentally-friendly way.

Where we do have to use roads, 80% of our fleet used to transport materials to site are Euro 6 compliant. So, you can rest assured that your concrete has still made the most efficient journey possible.

A REDUCED CARBON FOOTPRINT – PAS 2080

Following the 2013 Infrastructure Carbon Review, it was found that infrastructure is responsible for over 50% of the UK’s carbon emissions.

The PAS 2080 standard was designed to specifically address carbon management within the infrastructure life cycle. We were awarded PAS 2080:2016 certification for the process of carbon management in infrastructure in the capacity of product and material supplies. Since then, we’ve worked relentlessly to reduce our carbon footprint throughout our value chain and operations.

RESPONSIBLE SOURCING: BES 6001

The BES 6001 certification recognises construction companies that source responsibly throughout manufacturing and supply chain.
Concrete is durable like no other building material. Buildings erected today stand the test of time for generations. And when a concrete building is torn down, its components can be almost completely recycled.

SAME GREAT STRENGTH

A key characteristic of concrete is strength. There’s a myriad of concrete mix possibilities, each designed specifically to meet a range of criteria. This doesn’t have to change with low carbon concrete. You can still create complex designs with the same reliability and strength of traditional concrete.

SAME GREAT FINISH

Whether it’s exploring different mix designs, product proposals or strength testing for added peace of mind, our concrete team is on-hand to help you choose the most sustainable option for your needs.

Concrete is the second most widely used material worldwide, after water. The environmental impact of concrete is not purely due to the per kg carbon produced when compared to other construction materials, it’s due to the sheer volume produced.

Cement, a key ingredient of concrete, equates to 90% of its carbon footprint. Originally this was reliant on using fossil fuels during the manufacturing process. However, did you know this process produces less than 1.5% of UK carbon emissions against an average of 7% worldwide?

As the industry moves away from fossil fuels, we’re actively seeking greener solutions to help decarbonise our environment and achieve the net zero target. ECOPact is the start, actively reducing CO₂ in your build, no matter what the project. All alongside maximising alternative fuels throughout the production process within both our cement plants. And investing in future technology to increase our thermal substitution rate at our plants.

**SUSTAINABLE DOESN’T MEAN COMPROMISE**

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**THE FOUNDATION OF GREENER CONSTRUCTION**

Carbon in concrete as we know it is predominantly from cement, but as you can see from the carbon flow there are a number of other factors involved.

In the UK we’ve been working on reducing carbon in our concrete for years without recognising the impact we have when reducing Ordinary Portland Cement in our mix designs.

Together we have converted to lower carbon blended cements and we are currently seeing this increase even further with over 75% of our ready-mixed concrete sales taking the first steps in lower carbon mixes.

These decisions have predominantly saved over 30% carbon when compared to the more traditional CEMI mixes. This change towards lower carbon mixes will have saved over 1.2 million kg of carbon per year. This is equivalent to over 4.8M miles driven in a diesel car.

**CONCRETE RECYCLING**

Did you know concrete can be recycled aiding the circular economy? Due to its inert nature, it can be used as recycled aggregate or recycled concrete aggregate.

With a performance comparable to natural aggregate it has many applications, including building products and road construction, reducing residual waste and reliance on virgin resources.

To find out more, get in touch with your local concrete team.

**DESIGNING A GREENER FUTURE**

By choosing the most suitable concrete mix, you’ll not only reduce your carbon emissions, but reduce the overall volume and weight of concrete used in a project. Plus reduce potential over design, positively impacting on the overall cost and viability of a project.

Whether it’s exploring different mix designs, product proposals or strength testing for added peace of mind, our concrete team is on-hand to help you choose the most sustainable option for your needs.

Get in touch at ecopact-aiuk@aggregate.com
RECOGNISING CHANGE THROUGH ECOPACT

To help us to recognise and celebrate the positive work that is already going on in UK construction, we will be rebranding all of these mixes with our new ECOPact brand. Helping us to record and report on these positive changes we are making every day.

This won’t need our customers to do anything different, but you will notice a change on your PoD and invoices as the ECOPact brand launches in the UK. When you make a decision to work with a solution that offers above 30% reduction in CO\textsubscript{2} we will recognise that by recording it as ‘ECOPact’.

All of our teams have been involved in a series of training sessions, not only to help understand the solutions we have but also to have a better understanding of why this matters.

Introducing our new ECOPact solutions:

**ECOPact - 30-50% Carbon Reduction**
A low carbon concrete utilising blended cement, that has between 30-50% CO\textsubscript{2} reduction compared to a standard concrete (CEMI) mix.

**ECOPact Prime - 50-70% Carbon Reduction**
An engineered low carbon concrete utilising higher blends of cements using supplementary cementitious materials. ECOPact Prime delivers between 50-70% CO\textsubscript{2} reduction compared to a standard concrete (CEMI) mix.

**ECOPact Max - Above 70% Carbon Reduction**
Our lowest carbon range of concrete using cement alternative technology such as alkali activation with alkali activators, offering a minimum of 70% CO\textsubscript{2} reduction compared to a standard concrete (CEMI) mix.

**Want to go Carbon Neutral?**
You can choose to make any ECOPact product, including Prime and Max, carbon neutral through offsetting the residual CO\textsubscript{2}. This will automatically upgrade your product to ECOPact Zero, our carbon neutral product.

You don’t need to do any additional work, simply upgrade your product to be carbon neutral when you place the order. Through our carbon offsetting scheme, we will calculate the remaining carbon and purchase the credits to ensure whichever product you choose, is the most sustainable option available right now.

We will handle all of the admin and provide you with a certificate as proof once your concrete has been delivered. It’s as simple as that.

**Try our Carbon Calculator**
As part of the new ECOPact range, we’ve developed an online carbon calculator. This simple-to-use online tool helps you calculate your CO\textsubscript{2} savings by recommending solutions based on the volume, concrete, and cement type; helping you to make the right choice.

In just a few clicks, you can generate a straightforward report based on your requirements.

Try it for yourself at www.aggregate.com/ecopact

If you need a project specific report, contact our technical team and they’ll develop a detailed report based on your requirements.

**Our Concrete Carbon Commitments**
To support our reduce theme we’re launching our three Concrete Carbon Commitments.

- We’ll support our industry partners by offering technical CPDs, making sure they can easily choose the best, lowest carbon concrete for the job.
- We’ll make sure that where CEM I is used we optimise the volume in our mixes - keeping it sustainable while making sure your performance needs are met. All supported by an efficient plant network and the latest technology in mix designs and testing.
- You’ll always have a clear product solution, meaning you can meet specification but include low carbon alternatives easily and with confidence. Delivered by expertly trained teams, giving you the tools you need to make a difference.

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**Put ECOPact at the Heart of Your Project**
We have already explained how we are already making some great sustainable decisions in the UK construction market, but we can do more. This is where the new ECOPact range will help us to make even better, sustainable decisions.

We have invested in new technology and spent time on research and development to help make the process as simple as possible for everyone involved.
WHAT'S CARBON OFFSETTING?

Carbon offsetting is rapidly rising in importance. The world’s carbon emissions are increasing at an alarming rate and offsetting your carbon emissions is a powerful mechanism to help in the battle against climate change and global warming.

Benefits of carbon offsetting are not only carbon emission reduction, but depending on the offset project type, they can bring many benefits to the wider environment. As well as local, social and biodiversity benefits.

Carbon offsetting means individuals and companies can reduce carbon emissions by buying credits in carbon reduction projects. These projects include:

- Biogas generation
- Clean water access
- Clean cookstove projects
- Renewables, such as solar PV and wind turbines

Each carbon credit is equivalent to a carbon reduction of one tonne of CO$_2$ and also meets ten of the United Nations Sustainability Goals (UNSDG).

OUR OFFSETTING PARTNERS

Circular Ecology is a UK based environmental consultant. They were founded in 2013 to offer resource efficiency services, including carbon footprinting, water footprinting, life cycle assessment (LCA), circular economy and general resource efficiency.

Circular Ecology has a strong background in the construction and the concrete industry, making them an ideal partner to support this programme.

THE OFFSETTING PROCESS

Carbon offsetting your emissions involves procuring carbon credits, then retiring them on behalf of your organisation. For a carbon credit to be have credibility, it must be:

- Additional – ensuring that the carbon reduction is real and permanent
- Verified – providing assurance on the quality and credibility of the credits
- Traceable – transparent and proving proof of the offset

There are carbon offsets available from various verification schemes, including:

- Gold Standard – www.goldstandard.org
- Verified Carbon Standard – verca.org/project/vcs-program

HOW TO GET STARTED

TOGETHER, WE’LL BUILD A GREENER FUTURE

WE’LL MANUFACTURE AND DELIVER THE CONCRETE TO YOUR PROJECT

WE’LL SEND YOU A BESPOKE CERTIFICATE WITH HOW MUCH CO$_2$ YOU’VE OFFSET

WE’LL CALCULATE THE CONCRETE FOOTPRINT OF THE ORDER

SELECT THE BEST ECOPACT PRODUCT FOR YOUR PROJECT

ORDER YOUR CONCRETE THROUGH THE SALES OFFICE
WHICH ECO PACT IS RIGHT FOR ME?

APPLICATIONS

Our range of ECO Pact products have been designed to offer alternative solutions for all construction applications - from foundations to structural and infrastructure.

For more detail or to discuss a specific application, speak to your local concrete team or email ecopact-aiuk@aggregate.com

ECO Pact

Standard Product Ranges

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ECO Pact

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CO2 reduction

- 30-50%
- 50-70%
- >70%
- 100%
**CO2e SAVINGS**

The below graphs demonstrate the CO2e savings and strength development v time of a typical C40/50 concrete.

For more detail or to discuss a specific application, speak to your local concrete team or email ecopact.aiuk@aggregate.com

**COMPRESSIVE STRENGTH GAIN OF C40/50 - DIFFERENT BINDER TYPES IN CONCRETE**

**RELATIVE % CO2e SAVING PER CONCRETE MIX**

**RMX – KG OF CO2e /m³ (MATERIALS)**
WHERE YOU CAN FIND ECOPACT

We have UK plants up and down the country, offering the ECOPact range.

To check your area, get in touch at ecopact-aiuk@aggregate.com

www.aggregate.com/ecopact