

# AGGREGATE INDUSTRIES

Concrete

## Emerald®



Emerald® is a range of concrete mixes that incorporate materials that are locally sourced where possible including secondary, recycled and reprocessed aggregates in addition to Portland cement substitutes. Emerald® provides specifiers and contractors a fit-for-purpose concrete solution that has a reduced environmental impact.

Each product in the Emerald range is made to order ensuring compliance with contract performance specification whilst reducing its impact on the environment. For example, our London Concrete business produces Emerald ready-mixed concrete which uses secondary aggregate to replace 55% of the total aggregate. The recycled aggregate content in elements such as pile caps 'may be' up to 70%. Emerald concretes utilise PFA or GGBS as a cement enhancer, together these provide an overall reduction in CO<sub>2</sub> emissions in the order of 70kg/m<sup>3</sup> without compromising performance or durability.

All Emerald products are assessed using the Mixer Desk process which is unique to Aggregate Industries and is certified by BRE Global.

### Features and benefits

Emerald when correctly specified will:

- Deliver sustainable ready-mixed concrete
- Deliver environmentally friendly offer that scores well under the environmental impact of the materials
- Assist new homes to conform to the Code for Sustainable Homes
- Score well for responsible sourcing
- Deliver a concrete that is classified as 'Excellent' by the BRE Responsibly Sourced Materials Scheme and BES 6001
- On request be provided with certification can state the CO<sub>2</sub> footprint, Eco-Point rating and Green Guide rating.

### Applications

- Infrastructure
- Buildings
- Industrial
- Commercial
- Domestic/residential
  - o Foundations
  - o Slabs
  - o Kerbs
  - o Mass fill.

\* Based on BRE Mixer Desk calculation.

† Represents non-primary material content within the complete mix design dependant on application.



## Manufacturing standard

Emerald conforms to the requirements of European standard BS EN 206-1:2001 concrete – Part1: Specification, performance, production and conformity with the requirements of BS8500-1 and BS 8500-2 2006.

As with all Aggregate Industries' products Emerald is manufactured under an independently monitored third party quality assurance scheme in accordance with ISO 9001, and with factory environmental compliance to ISO 14001.

## Installation standard

The Emerald range is intended to be placed by conventional skip, pump or direct placement methods.

Available in consistence classes S1, S2, S3, S4 and F1 – F4.

Full compaction will be achieved by the correct application of standard vibrating equipment, using other methods may not allow the products to achieve their full potential and should be evaluated with our assistance before use.

## Curing

As with any concrete it is essential to cure Emerald correctly, any failure to do so will result in some loss of performance and may invalidate any warranty offered.

Immediately the finishing operation is complete final curing should commence and may be accomplished by the use of any recognised high efficiency curing membrane or method.

Curing should continue for the period specified.

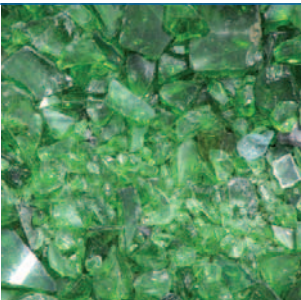
## Typical performance and technical data

The engineering properties of Emerald may be taken as being in all respects similar to conventional concrete and for design purposes should be assumed to be those stated in EN1992-1-1 table 3.1.

Available in strength classes	C7.5 to C40
Flexural strength from	4 to 8 N/mm <sup>2</sup>

The consistence class to be utilised is dependent upon the application, it will be discussed and agreed prior to supply.

The Emerald range can be offered as alternatives to traditional mixes – please ask a member of our technical services team for advice.



## Sustainability and local sourcing

**Responsible sourcing:** Aggregate Industries is the first company in the world to achieve accreditation to the BES 6001 Framework Standard for the Responsible Sourcing of Construction Products. Aggregate Industries has achieved an 'Excellent' rating for major product groups. The BES 6001 standard assesses:

- quality management
- environmental management
- health and safety management
- a range of social and environmental issues.

## Life

Life is our range of sustainable products and services. For more information please visit [www.aggregate.com/life](http://www.aggregate.com/life)

**Energy use:** Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2016 based on a 2012 base line.

**Manufacturing location:** produced in the UK, with locally sourced materials under strict environmental and social legislation, for local supply.

**Recyclable:** the product can be designed for a life in excess of 120 years and is fully recyclable.

## Policies

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website [www.aggregate.com](http://www.aggregate.com)

## COSHH data

Full COSHH data on our concrete range of products is available on request.

## Technical support

Detailed guidance and assistance with the preparation of specifications and use of our concrete range of products is available through the sales offices. A free technical service is also available.

**Call our concrete technical services department at the nearest sales location to your contract or go to our website [www.aggregate.com/emerald](http://www.aggregate.com/emerald)**

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### Scottish region

Duntilland sales office  
Toms Forest sales office

Tel: 01698 870947 Fax: 01698 870637  
Tel: 01487 644200 Fax: 01487 844250

### Midlands and North region

Carnforth sales office  
Barton under Needwood sales office

Tel: 01524 736933 Fax: 01524 736665  
Tel: 01283 714187 Fax: 01283 712084

### South region

Wickford sales office  
Plymouth sales office  
Melbur sales office

Tel: 01268 769696 Fax: 01268 769097  
Tel: 01752 485201 Fax: 01752 408378  
Tel: 01726 862233 Fax: 01726 862240

### London Concrete

Sales office

Tel: 0208 380 7300 Fax: 0208 380 7301

[www.aggregate.com/strike](http://www.aggregate.com/strike)



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