

Bardon Cemflow product information



BES 6001:2008



Bardon Cemflow is a range of highly specialised self compacting concrete formulations unique to Bardon Concrete, each presenting significant advantages over the equivalent traditional concrete.

Designed by Bardon Concrete to provide a highly fluid consistency and minimal energy consumption in use. Bardon Cemflow is based on carefully selected and controlled binders in conjunction with aggregates selected in accordance with the proposed end use.

Bardon Cemflow offers contractors and specifiers a high performance, secure fast track solution to many of the more challenging aspects of construction. Bardon Cemflow and is available in four categories.

Bardon Cemflow A

An architectural grade for very high quality finishes

Bardon Cemflow H

Intended for internal flooring and screeding applications and other horizontal slabs

Bardon Cemflow V

A general purpose grade intended for use in framed and general construction

Bardon Cemflow F

For use in all foundation applications where access is restricted

Bardon Cemflow when correctly specified and placed will deliver:

- High quality finishes - Cemflow is capable of delivering the finest surface finish and detail in areas of difficult access, complex formwork or very heavily reinforced sections. The mix design concept applied to products in this range ensures each product is robust under all normal site conditions
- Reduced or eliminated remedial work
- Reduced labour requirements - labour friendly concrete, the simplicity of placing together with the elimination of compaction and in many instances only very minor finishing effort will ensure a project achieves savings in terms of time and cost
- Bardon Cemflow is easier to place and finish than conventional concrete, and is available in standard strengths up to 40 N/mm². Higher grades are possible, and our products can be supplied in a range of colours
- Improved output in precast environments
- Reduced impact on the environment - noise impact of the construction operation is greatly reduced, concrete pumps run more quietly and the need for all forms of vibration is eliminated, in many cases the use of power floating may also be avoided
- Reductions of placing and finishing time - enhanced rate of placing that can be achieved using Bardon Cemflow. It allows the scheduling of larger pours or reduction in hours required. The elimination of late working or overtime costs can significantly benefit the environment through these actions
- When used as a screed, will offer superior performance over traditional sand cement and flowing screed mixes
- Elimination of "vibration white finger" risk
- Bardon Cemflow can be tailored to the particular challenges of your contract.



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Applications

Bardon Cemflow may be utilised in all forms of construction in residential, transport infrastructure, office and administrative buildings as well as military engineering, hotels, schools and hospitals.

Manufacturing standard

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

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

Typical performance and technical data

The engineering properties of Bardon Cemflow 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 | C20 to C40 higher grades possible |
| Flexural strength from | 4 to 8 N/mm ² |
| Typical drying shrinkage | 0.055% |
| Minimum laying thickness Cemflow H | 75 mm |

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

Installation standard

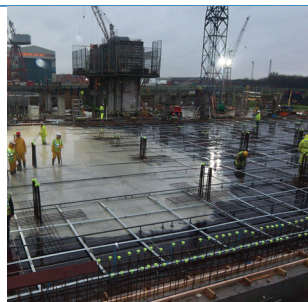
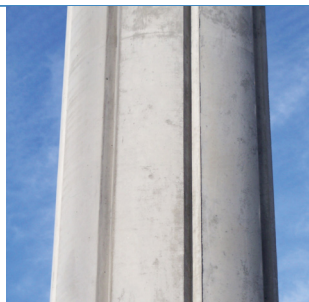
The Bardon Cemflow range may be placed by any conventional method. Achieving the optimum finished surfaces may require discussion with our specialist staff before construction begins. Successful placing has been achieved using pump, conventional skip and direct placement methods.

When placing Bardon Cemflow it is normal to use trained operatives, should you require support with the training Bardon Concrete would be happy to assist.

Curing

As with any concrete to achieve the desired properties it is essential to ensure correct and adequate curing.

Self compacting concrete has a high fines content and a low tendency to bleed; this characteristic means the initial curing operations should begin as soon as practicable after finishing to minimise the risk of premature drying and plastic shrinkage cracks. The use of correctly applied 90% efficiency curing membrane has been shown to be adequate. Curing should continue for a minimum of 7 days.



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Sustainability and local sourcing

Responsible sourcing: Aggregate Industries is the first company in the world to achieve a BES 6001:2008 Responsible Sourcing Certificate from BRE Global. Products are assessed on:

- quality management
- environmental management
- health and safety management
- greenhouse gas emissions
- minimising raw material usage
- labour practise
- biodiversity
- community engagement.

Energy use: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2012.

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

Recyclable: the product has a life expectancy of up to 120 years and is fully recyclable.

Key aggregate and recycled content

This product may be formulated to be up to 50% better for the environment than the equivalent traditional concrete. Bardon Concrete are unique in being able to quantify this difference. Wherever available, a recycled or secondary aggregate may be selected to achieve a reduced environmental impact and increased green guide rating.

The raw materials used in the manufacture of the binders are obtained from processes where they form from a co-product.

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.

COSHH data

Full COSHH data on Bardon Concrete products is available on request.

Technical support

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

Call Bardon Concrete technical services at the nearest sales location to your contract.

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