

Cemflow®



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

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

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

Cemflow A

An architectural grade for very high quality finishes

Cemflow H

Intended for internal flooring and screeding applications and other horizontal slabs

Cemflow V

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

Cemflow F

For use in all foundation applications where access is restricted

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
- 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. The use of power floating is eliminated.
- Reduces placing and finishing time - the enhanced rate of placing that can be achieved using Cemflow allows the scheduling of larger pours or a reduction in working hours required. The elimination of late working or overtime costs can significantly benefit the environment through these actions
- The potential to eliminate late working and finishing is a significant reduction in the environmental impact of construction.



- **Cemflow preparation allows the contractor to ‘place and finish’ concrete without the normal delay between placing and finishing operations. Volumes of 350m³ to 450m³ of completed flatwork are readily available within a normal 10 hour shift.**
- **When used as a screed, can offer superior performance over traditional sand cement and flowing screed mixes**
- **Elimination of “vibration white finger” risk**
- **Cemflow can be tailored to the particular challenges of your contract.**
- **Cemflow H is compatible with flowing screed when used in association with underfloor heating systems.**

Applications

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 repair and refurbishment.

Manufacturing standard

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 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.

Aggregate Industries was the first ready-mixed concrete business to achieve the ‘Very Good’ rating set by BES 6001 Responsible Sourcing.

Installation standard

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

All Cemflow H flatwork elements including thin overlays and screeds must contain fabric reinforcement, as a measure of controlling cracking.

Typical performance and technical data

The engineering properties of 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	0.6%
Minimum laying thickness Cemflow H	75mm

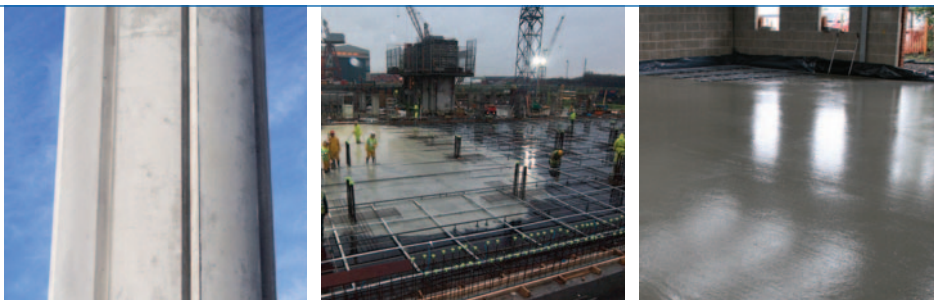
The consistence class to be utilised is dependent upon the application, it will be discussed and agreed prior to supply.

When placing Cemflow it is normal to use trained operatives, should you require support with the training Aggregate Industries 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 has a low tendency to bleed; this characteristic means the initial curing operations should begin as soon as practicable after finishing the surface to minimise the risk of premature drying and plastic shrinkage cracks. For larger pours the curing process must run consecutively to the finishing operation. The use of a correctly applied 90% efficiency curing membrane has been shown to be adequate. Curing should continue for a minimum of 7 days.



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 practice
- biodiversity
- community engagement.

Energy use: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2012 based on a 2008 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.

Key aggregate and recycled content

This product may be supplied containing a recycled or secondary aggregate to achieve a reduced environmental impact and increased Green Guide ratings for structural elements and assist in achieving BREEAM waste credits.

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 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 at the nearest sales location to your contract.

Aggregate Industries - Head Office
Bardon Hill, Bardon Road, Coalville,
Leicestershire LE67 1TL

Tel: 01530 510066
Fax: 01530 512198

London Concrete
London House, 77 Boston Manor Road,
Brentford, Middlesex TW8 9JQ

Tel: 0208 380 7300
Fax: 0208 380 7301

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



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