

# AGGREGATE INDUSTRIES

Concrete

## Highflow™ S

Life®

92%\* reduction in CO<sub>2</sub>



Highflow™ S, a free flowing floor screed for placing by pump or chute, provides contractors and specifiers with a high performance fast track solution to the construction of screeded floors.

Highflow S is based on alpha hemi hydrate or anhydrite and is distinguished by a number of special technical properties.

Highflow S binder conforms to EN ISO 14021.

**Highflow S when correctly specified will deliver:**

- High early strength
- High impact resistance and readily achieves the requirements for category A floors
- High volume stability, no curling or lifting
- Ability to lay large areas without joints
- Reduction in thickness when compared to traditional methods
- Increased accuracy of placements with high placing rates and outputs up to 10 times greater than conventional screed
- Freedom from the need to use reinforcement below ceramic finishes

- Quicker access for follow on trades providing significant cost savings to your project
- Excellent heat transfer characteristics and is eminently suitable for use with either water or electrical underfloor heating systems
- Correctly laid, surface flatness to SR2 (5mm under a 3m straight edge) may be readily achieved.

### Applications

Highflow S is a screed for use in residential, office and administrative buildings, as well as hotels, schools and hospitals, it is well suited for under floor heating systems. It is suitable to receive all types of plastic/vinyl and textile coverings as well as parquet, slabs/boards and tiles.

Highflow S is not suitable for use without a final surface covering as described above nor in continuously or regularly wetted areas such as showers, external floors or swimming pool surrounds.

### Manufacturing standard

Highflow S conforms with the requirement of European standard BS EN 13813:2002 Screed Material and Floor Screeds and with the code of practice for floor screeds, BS 8204, appropriate parts.

As with all Aggregate Industries products screeds are manufactured under independently monitored third party quality assurance schemes in accordance with ISO 9001 and with factory environmental compliance to ISO 14001.



## Performance and technical data

Available in strength classes from:	C10 to C30 (EN 13813:2002)
Flexural strength from:	4 to 6 N/mm <sup>2</sup>
Access to light / foot traffic after:	24 hours
Access for light loadings from:	48 hours
Working time approximately:	240 minutes
Flow value:	230 – 260 mm (Hagermann Cone)
Drying time:	1mm/day see note 1
Drying shrinkage:	≤ 0.02%
Coefficient of thermal expansion:	≤ 0.01 mm/m/°C
Flammability:	non-combustible
Density:	at delivery 2050 – 2150 kg/m <sup>3</sup> when dry 1950 – 2100 kg/m <sup>3</sup>
Minimum laying thickness:	floating / unbonded 40 mm (bonded 35 mm)

Note 1: Determined at 20°C and 65% RH for thicknesses up to 40mm. Sections greater than 40mm assume 2 days/mm.

## Installation standard

Highflow S is intended to be placed by screed pump using trained personnel; we can assist you by training your staff.

As Highflow S is intended to be laid unbonded using a debonding membrane, the preparation of the supporting floor may be kept to a minimum; generally the need to scabble or similarly treat the surface is avoided.

The membrane should be flat, free from tenting or folds and continuous; any joints or overlaps, all ducting, box outs and pipework should be taped or sealed to prevent loss or ingress of the flowing product.

A minimum 5mm compressible strip should be placed around the perimeter of the floor.

To ensure a suitably flat surface and correct thickness on completion of placing, the use of a laser levelling system is recommended. Once pumped into place the surface is finished using two passes with a 'dappling' bar with the second pass being at right angles to the first.

## Curing

It is not necessary or desirable to use a curing membrane.

It is advisable that the building is weather tight. Unglazed windows and unfitted doorways should be covered with polythene to ensure freshly placed flowing screed is protected from rain, frost, and draughts. Direct sunlight may cause cracking and should be avoided during at least the first 24 hours.

Light trafficking of the screed is possible after 24 hours.

Floor finishes may be applied when the residual moisture content is <0.5 CM% for vapour sensitive flooring and <1.0 CM% for vapour permeable flooring.

## Remarks

Room, component and mortar temperatures during installation must be between 5°C and 35°C.

Excessive drying rates must be avoided during the first 24 hours.

Prior to installation of floor finishes, the screed may require light sanding to remove any surface laitence, this is dependent on the binder type chosen.

From 48 hours after completion of the installation, dehumidifiers may be used to assist with drying. Where an under floor heating system forms part of the floor, from 7/8 days after placing the system may be used gently and intermittently. Excessive use may cause cracking.

## 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.

**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 at least 60 years but is not yet fully recyclable.

## Key aggregate and recycled content

This product is up to 40% better for the environment than traditional screed and 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](http://www.aggregate.com)

## COSHH data

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

## Technical support

Detailed guidance and assistance with the preparation of specifications and use of concrete 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.**

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