

BREEDONFlow® Fine IS A HIGHLY FLUID EXPERT PERFORMANCE CONCRETE WITH DESIGN PROPERTIES THAT CAN BE UNIQUELY TAILORED TO THE CLIENT'S PLACING TECHNIQUES AND STRENGTH REQUIREMENTS.

The self-compacting product will intelligently align to the underlying formwork to match the design precisely. BREEDONFlow® Fine delivers a first-class finish typically used by design architects.

BREEDONFlow® Fine is highly flowable, non-segregating concrete that can spread into place under its own weight, enabling it to encapsulate extremely congested reinforcing steel and/or complicated formwork, with no mechanical vibration required.

The unique properties of BREEDONFlow® Fine offer significant economic, constructability and aesthetic performance on conventional construction projects.

BREEDONFlow® Fine allows for rapid concrete placement with significantly reduced labour requirements, consolidation and finishing. The outstanding flow characteristics of BREEDONFlow® Fine can also result in dramatically improved surface finishes. Its use for architectural applications is increasing significantly.

APPLICATIONS

- Bespoke finishes
- Walls
- Columns
- All types of building with vertical constructions

BENEFITS

- Outstanding quality finish
- Intelligent design alignment that matches the shape and texture of formwork
- No need for compaction or vibration

ARCHITECTURAL BENEFITS

- More uniform colour.
- Provides very sharp edges with the use of the correct formwork
- Significant reduction in the number of bugholes with the use of proper form release agents and formwork quality
- Eliminates air pockets under horizontal formwork elements when the concrete is properly placed.
- Higher quality of surface finish



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FORMWORK DESIGN CONSIDERATIONS

A structural engineer completing the formwork design must design for a full liquid head condition.

BREEDONFlow® Fine allows for exceptional concrete placement rates, however the formwork has to be able to take the resulting pressures that are generated. As a result, pour rate must be controlled.

Concrete placement by pump from the bottom of the formwork is often performed because of the reduced chance of air bubbles being trapped up against the formwork.

SURFACE QUALITY OF THE FORMWORK MATERIAL

One of the major benefits to BREEDONFlow® Fine is the fact that it produces an outstanding concrete surface finish. BREEDONFlow® Fine will perfectly mirror the quality of the formwork that it is cast against.

FORMWORK RELEASE AGENTS

The proper selection of form release agents for BREEDONFlow® Fine projects is a critical activity for the formwork contractor since they can have a dramatic effect on the quality of the formed concrete finish. Greater care must also be taken when applying these materials since excess form release agents can result in staining and retention of air bubbles at the formed surface.

TESTING

Slump Flow - This test method evaluates the ability of the SCC to flow under its own weight in an unconfined condition. This test method involves filling an inverted slump cone full of concrete without consolidating the material on a non-absorbent rigid surface, lifting the slump cone and measuring the diameter of the resulting concrete that is formed.

ENGINEERING PROPERTIES

Self-Consolidating Concrete and conventional concrete that is vibrated to properly consolidate have similar compressive strength and performance properties. While compressive strength is the most common property used in concrete evaluations, there are other important material properties that need to be considered. The typical performance properties include:

Compressive Strength - BREEDONFlow® Fine will typically have a slightly higher compressive strength when compared to a conventional concrete of similar w/c ratio. This is due to the improved interface between the aggregate and the hardened paste.



Tensile Strength - For a given concrete strength and maturity the tensile strength can normally be assumed to be the same as conventional concrete. This is due to the fact that the paste volume has no significant impact on tensile strength.

SPECIFICATION OVERVIEW

Maintenance of workability	= bespoke to customer application
Compressive strength at 28 days	>35N/mm ²

The information given in this technical datasheet is based on our current knowledge and is intended to provide general notes on our products and their uses. Breedon Group plc endeavours to ensure that the information given is accurate but accept no liability for its use or its suitability for a particular application because of the product being used by the third party without our supervision.

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