



SELF-CONSOLIDATING CONCRETE

Agilia® is a range of self consolidating concretes. Due to the highly fluid nature of Agilia, these concretes do not require vibration and provide a beautiful final surface finish, helping to contribute to reduced construction time and costs on your project.

Advantages

- Agilia concretes are self-placing and achieve consolidation without segregation within the mix, which satisfies a wide range of formwork stripping requirements
- Agilia concrete is characteristically easier to place than conventional concrete due to its high flow properties which reduce the number of required pouring points and eliminates the need for vibration in most applications
- With Agilia, rubbing, patching and discoloration are minimized leaving a beautiful concrete with high quality surface finish on your project

Characteristics

- Agilia is fully compliant with CSA Standards A23.1.14
- Agilia complies with the above CSA standards regarding:
 - Compressive strength
 - Exposure class
 - Slump retention
 - Aggregate specification



Applications

- Many applications are possible with Agilia, including floors, beams, columns and precast operations. In these applications, Agilia can meet a wide range of formwork stripping requirements, makes for more efficient labor utilization, and achieves superior surface quality with reduced finishing work.
- Suited for a wide variety of applications, some of the specific mixes available within our Agilia family of concrete products include:
 - Agilia Architectural: Ideal for heavily reinforced or high congested applications, seismic zone construction, walls, columns, spans, precast, and applications with an architectural finish requirement.
 - Agilia Vertical: Ideal for spans, precast, walls, columns, heavily reinforced or highly congested applications, and applications with a high quality surface requirement.
 - Agilia Horizontal: A self-leveling concrete specially formulated to enable quick fabrication of slabs and floors with minimal labor.
 - Agilia Industrial/Civil: Ideal where placement requires enhanced workability/flow with performance above the level of conventional superplasticized mixes (vibration may be required).
- Key information is required when ordering Agilia, including:
 - Strength gain criteria
 - The workability period
 - Type of construction

Batching

Agilia can be produced throughout the Lafarge network of ready-mix plants in Western Canada. Availability of Agilia Architectural may vary regionally.

Placement

Agilia is adaptable to any concrete placing technique, including pumping, chute, bucket, tremie, and others. Agilia is also compliant in either cast-in-place or precast operations.

Vibration (High Frequency)

Architectural: Vibration is not recommended. Not required.
Horizontal: Not recommended.
Vertical: Vibration is not recommended. Not required.

FEATURES

CURING

Curing procedures for Agilia products are the same as for conventional concrete.

As indicated in the CSA and ACI standards for flatwork placed in areas subject to very low humidity, it may be beneficial to use a monomolecular film product for intermediate curing and moisture retention.

MOLDING CHARACTERISTICS

Texture

Due to the highly fluid nature of Agilia concretes, the material will replicate the form surface or special mold textures being used.

Color is the same as conventional concrete. This can result in a beautiful, ready-to-paint surface.

The surface rating for Agilia Architectural should be at a minimum equal to ASCC standard P1.***

STRENGTH CHARACTERISTICS

Compressive Strength 28-90 MPa
4000 – 13000 psi

Modulus of Elasticity Similar or superior to conventional mixes of the same proportions*

*Varies with materials and proportions.

RHEOLOGY

Agilia concretes are highly fluid and self-compacting.

Slump Flow Vertical: 22" – 26" / 550 – 650 mm
Architectural: 26" – 30" / 650 – 750 mm
Horizontal: 22" – 30" / 550 – 750 mm
Industrial/Civil: 18" – 22" / 450 – 550 mm

Slump flow is determined by measuring the diameter of the concrete "spread" after removing the slump cone.

DURABILITY

Air Entrainment Available = 4% - 8%

Rapid Freeze Thaw = 95 – 100%

*ASTM C-666 Procedure A (300 cycles).

Rapid Chloride Permeability = Capable of achieving <1000 Coulombs.

Salt Scaling < .16 lb/ ft²

< .8 kg/ m²

*ASTM C-672.

OTHER PROPERTIES

Density = 3850 – 4200 lb/ yd³
2200 – 2450 kg/ m³

Entrapped Air = 2% – 4%

Shrinkage = +/- 10% of control**

**Control is conventional concrete at similar strength.

