

# Ultra<sup>TM</sup> *series*

## CUSTOMIZED CONCRETE SOLUTIONS

Ultra Series is a range of concrete performance enhancing admixtures that maximize specific aspects of ready mix concrete, ensuring that the concrete provided is tailored to meet each project's unique requirements.

### Advantages

- The addition of admixtures into concrete imparts significant benefits in performance in either its plastic or hardened state
- Improved workability, finishability, mix consistency and stability, compressive strength, water resistance, shrinkage, and durability can be realized

### Tailored Performance

- Ultra Series enhancers are available for a variety of applications and are blended based upon your needs
- Lafarge professionals manage all required input and technology required to ensure compatibility and availability
- Case-by-case assessments through wet and dry testing by Lafarge's quality control and sales teams ensure that a customized, project-specific blend is obtained



## TESTED PERFORMANCE

### QUICK SET

Command Set (ideal for concrete without steel reinforcement) and Quick Set (for concretes with steel reinforcement) additives can accelerate setting times by up to 55%. These products adhere to ASTM C403 testing guidelines and can be added to concrete with aggregates from 20MPa to 40MPa.

### DELAY SET

When project have long haul requirements or anticipated site delays, Delay Set can slow the initial setting time of concretes with aggregates from 20MPa up to 40MPa by up to 60% over standard setting times. Tested according to ASTM C403.

### ANTI WASHOUT

Ensuring that concrete maintains its paste and water/cement ratio in water is critical to maintaining steel coverage. Anti Washout offers up to 90% reduction in loss of concrete mass (testing according to CRD-C61 plunge test standard.)

### FLOW

The ideal fluidity enhancement for many applications, Ultra Series Flow offers increased workability without sacrificing any performance aspects including compressive strength or set times. Tested according to CSA A23.5-5C.

### WATERTIGHT

Watertight additives stop corrosion of steel reinforcement and improve long term freeze thaw resistance. Meets CSA A23.104 for concrete in severe environments, achieves Coulomb ratings from 700 to up to 1000 based upon blend levels, and offers further options for sulphate resistance and smaller aggregate sizing.

### ANTI ABRASION

As a replacement for shake-on hardening agents the Anti-Abrasion enhancer offers consistent hardness with better abrasion and impact resistance. Ultra Series Anti Abrasion provides an average reduction of 45% in grinding damage (based on Robinson abrasion resistance test results according to ASTM C627.)

### HIGH STRENGTH (>50MPa)

Command Set (ideal for concrete without steel reinforcement) and Quick Set (for concretes with steel reinforcement) additives can accelerate setting times by up to 55%. These products adhere to ASTM C403 testing guidelines and can be added to concrete with aggregates from 20MPa to 40MPa.

### HIGH EARLY STRENGTH

In applications requiring rapid access to project sites (road construction, infrastructure) the High Early Strength additive offers the same workability, pumpability and ease of placement as typical concretes with the added benefit of early formwork removal and increased durability. The admixture dosage is calculated by Lafarge sales and quality teams.

### REDUCED SHRINKAGE

In CSA modified ASTM C157 testing the addition of Lafarge Reduced Shrinkage provides reduced cracking. Used as part of a system to achieve further reduction with construction and control joints, this option can extend the performance of your concrete structure.

### FIBERPLUS POLY

Fiberplus Poly additives meet all ASTM and ICC requirements and are paired with engineering support to maintain integrity. Lafarge offers a range of size and weight of polypropylene fibers that can slow bleed rates, reduce shrinkage and cracks, and reduce creep and spalling challenges.

### FIBERPLUS STEEL

Steel reinforcement may be eliminated by the addition of hooked steel fibers to our ready mix concretes. These dosages are specifically engineered for project requirements and meet all ASTM requirements with various dosage rates.

