MULCRETE

ARCHITECTURAL

CONCRETE ADMIXTURES

TECHNICAL DATA SHEET

ACCELERATOR

High-performance accelerator for precast, GFRC, UHPC and Wet Cast

55 lb (25 kgs)

- Optimized for high-production concrete applications.
- Boosts early and final concrete strength.
- Shortens curing cycles and demolding time.
- Typical demolding time: 3-4 hours.
- Reliable performance in cold weather conditions.
- Compatible with all Mulcrete products.

Complies with ASTM C-947-3.
Prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and GHS Revision 3.

ACCELERATOR – TECHNICAL DATA SHEET

PRODUCT NAME: ACCELERATOR

1. DESCRIPTION

ACCELERATOR is a white, odorless crystalline solid admixture designed to accelerate cement hydration.

It is an excellent source of calcium based accelerating compound when dissolved in water, providing rapid early strength development and reduced setting and curing times.

2. PROPERTIES

ACCELERATOR is a high-performance cement accelerator formulated for high-production concrete applications.

- Boosts early and final concrete strength
- Shortens curing cycles and demolding time
- Typical demolding time: 3–4 hours
- Improves hardness and surface density
- Reliable performance in cold weather conditions
- Helps prevent corrosion on embedded metal surfaces
- Reduces the risk of efflorescence
- Compatible with all Mulcrete products

3. SPECIAL CHARACTERISTICS

ACCELERATOR performs effectively at low temperatures, accelerating cement hydration without compromising final mechanical properties.

It contributes to improved durability and reduced surface defects in cementitious systems.

4. APPLICATION

ACCELERATOR is used as a cement admixture in cement slurries and concrete mixes where rapid setting and early strength are required.

Typical applications include:

- GFRC Concrete
- UHPC Concrete
- Wet Cast Concrete
- Precast Concrete Elements

5. DOSAGE AND METHOD OF ADDITION

The recommended dosage of ACCELERATOR ranges from: 1.5 % a 3.0 % by weight of cement, depending on mix design, performance requirements, and application conditions.

The recommended dosage of ACCELERATOR depends on cement type, mix design, temperature, and required performance.

Optimal dosage should be determined through laboratory or field trials prior to full-scale application.

Method of Addition:

- Dry blend ACELERATOR with cement and aggregates before adding water.
- Ensure adequate mixing time for complete dissolution and dispersion.

6. GENERAL PROPERTIES

Values are typical and not intended as specifications.

Property	Value	Test Method
Appearance	White crystalline powder	Visual
Total calcium (%)	30.1 min	Internal method

Property	Value	Test Method
Heavy metals (as Pb) (%)	0.001 max	ICP
Heavy metals (as As) (%)	0.0005 max	ICP
Water insolubles (%)	1.0 max	Gravimetric
Moisture (%)	0.5 max	Oven method
pH (10% aqueous solution)	6.0 – 8.0	ISO method

7. STORAGE

Store ACCELERATOR in its original, unopened packaging in a cool, dry, and well-ventilated area.

- Recommended storage temperature: 15 °C to 25 °C
- Protect from moisture and incompatible chemicals
- Shelf life: up to 18 months from the manufacturing date when stored under recommended conditions

Keep containers tightly closed when not in use.

8. COMPLIANCE

- Complies with **ASTM C-947-3**
- Prepared in accordance with the **OSHA Hazard Communication Standard (29 CFR 1910.1200)**
- Classified and labeled according to **GHS Revision 3**

9. LIMITATIONS

- Performance may vary depending on cement chemistry, mix proportions, and curing conditions
- Not recommended for use without prior testing in critical structural applications
- Overdosing may result in excessively rapid setting or reduced workability

10. TECHNICAL DISCLAIMER

The information provided in this Technical Data Sheet is based on laboratory testing and practical experience.

Since conditions of use are beyond our control, no warranty is expressed or implied.

The user is responsible for determining the suitability of the product for the intended application.

For health, safety, and environmental information, please refer to the Safety Data Sheet (SDS).