



ACCEL-SET

Non-Chloride Set Accelerating Admixture for Concrete

1. Product Description

a. **Basic Use:** Accel-Set is a non-chloride and non-corrosive based liquid admixture formulated to accelerate the set of concrete in cold weather. Accel-Set is added to portland cement concrete at the ready-mix plant or job site. Accel-Set also improves workability while increasing early age strengths of concrete.

b. **Features/Benefits:**

- Non-chloride formulation accelerates set and early age strength gain without possibility of steel corrosion.
- Helps densify concrete.
- Plasticizing action improves workability, decreases permeability and increases density and compressive strengths at all ages.
- Helps reduce efflorescence.
- Reduces construction costs by eliminating need for extended thermal protection and eliminating labor overtime due to cold weather.
- Easy to use by simply adding to the concrete at the batch plant or job site.
- Helps prevent freezing of concrete when ambient temperatures are below 32°F (0°C).

c. **Typical Applications:** Use as a liquid admixture to accelerate and increase early age strengths of concrete. May be used in mortar to set fence posts, mailbox supports, signs, handrails and poles.

d. **Limitations:** Accel-Set should not be used when ambient temperatures are below 20°F (-7°C).

e. **Composition:** Accel-Set consists of plasticizers, non-chloride accelerators and other proprietary ingredients.

f. **Color/Appearance:** Accel-Set is light amber in color.

2. Packaging

Accel-Set is packaged in three standard units:

<i>Unit</i>	<i>Shipping Wt.</i>
<i>5-gal. (18.9 liter) pail</i>	<i>49 lbs. (22.2 Kg)</i>
<i>55-gal. (208 liter) drum</i>	<i>539 lbs. (244.5 Kg)</i>
<i>Bulk-Tanker</i>	

3. Estimating/Coverage

Recommended dosage per 100 lbs. (45.4 kg) of cement is shown below:

<i>Temperature</i>	<i>Dosage Rate</i>
<i>Above 45°F (7°C)</i>	<i>12-18 oz./cwt</i>
<i>Below 45°F (7°C)</i>	<i>12-36 oz./cwt</i>

4. Technical Data

(All data at 35°F (2°C).)

a. **Compressive Strength:** ASTM C 39, psi (MPa).

<i>Age</i>	<i>Plain Concrete</i>	<i>Accel-Set</i>
<i>3 days</i>	<i>1,350 (9.3)</i>	<i>1,890 (13.0)</i>
<i>7 days</i>	<i>2,470 (17.0)</i>	<i>3,120 (21.5)</i>
<i>28 days</i>	<i>3,890 (26.8)</i>	<i>4,370 (30.1)</i>

b. **Initial Set:**

- Plain Concrete: 4 hours, 0 minutes
- Accel-Set: 2 hours, 40 minutes

c. **Final Set:**

- Plain Concrete: 6 hours 10 minutes
- Accel-Set: 4 hours, 20 minutes

d. **Specifications:**

- Meets ASTM C 494, Types C and E.

5. Directions for Use

a. **Mixing:** Accel-Set can be dispensed into any of the concrete materials, except cement, but preferably into the water. Accel-Set is compatible with other admixtures; however, each admixture should be added to the mix separately.

6. Availability

Accel-Set is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Accel-Set is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when applied by competent applicators.

8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



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