



THE EUCLID CHEMICAL COMPANY

19218 REDWOOD ROAD • Cleveland, OH 44110
(216) 531-9222 • (800) 321-7628 • FAX (216) 531-9596
www.euclidchemical.com

ACCELGUARD® 90

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**NON-CHLORIDE, ACCELERATING
WATER REDUCING ADMIXTURE**

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ACCELGUARD 90 is a ready to use accelerating, water reducing admixture for concrete that does not contain calcium chloride or added chloride ions. It increases early strength at low temperatures and is especially effective in extremely cold temperatures as low as 20°F (-7°C). ACCELGUARD 90 also will increase workability of the concrete and reduces bleeding and segregation. This product is compatible with most other admixtures commonly used in conventional concrete.

PRIMARY APPLICATIONS

- Cold weather concreting
- Structural and plain concrete
- Concrete block and mortar
- Precast and post tensioned concrete

FEATURES / BENEFITS

- Reduces initial set 1 to 6 hours depending on concrete temperatures
- Cuts construction costs - concrete placing cycle is accelerated
- Improves workability and provides denser concrete
- Minimizes bleeding and segregation
- Improves compressive strength development at early ages
- Decreases overtime allowing same day finishing

SPECIFICATIONS / COMPLIANCES

- ASTM C-494, Type C and E admixture
- ACI 201, Guide for Durable Concrete, and ACI 302 Guide for Concrete Floor and Slab Construction prohibit the use of chlorides in many types of concrete. ACCELGUARD 90 may be used in these types of concrete such as: floors over pre-stressed concrete or galvanized decking, floors containing two kinds of embedded metal, reinforced concrete in moist environments and/or exposed to chloride deicing salts.

TECHNICAL INFORMATION

Typical Engineering Data

ACCELGUARD 90 is used @ 10 oz to 90 oz/100 lb (625-5600 ml/100 kg) of cement for most work. As the quantity is increased, the acceleration of setting time and strengths are increased.

Shelf life is 2 years in original, unopened package.

TYPICAL FIELD CONCRETE RESULTS

Concrete Temperature	43°F* (6°C)	35°F* (2°C)
Air Temperature	40°F (4°C)	24°F (-4°C)
Cement	517 lb/yd ³ (307kg/m ³)	517 lb/yd ³ (307kg/m ³)
ACCELGUARD 90	60 oz/cwt (3750 ml/100 kg)	90 oz/cwt (5600 ml/100 kg)
Slump	3.75" (95.3 mm)	3.25" (82.6 mm)
Air	5.8%	3.8%
Average 3 day Compressive Strength	4,000 psi (27.6 MPa)	4,100 psi (28.3 MPa)
Average 7 day Compressive Strength	5,200 psi (35.9 MPa)	5,300 psi (36.5 MPa)
Average 28 day Compressive Strength	6,800 psi (46.9 MPa)	6,800 psi (46.9 MPa)
Initial set	5 hrs., 48 min. (5 hrs., less than reference mix)	7 hrs., 46 min. (6 hrs., less than reference mix)

*Average Concrete Temperature at or during the test.

PACKAGING

ACCELGUARD 90 is packaged in bulk, 275 gal (1041 liter) totes, 55 gal (208 liter) drums and 5 gal (18.9 liter) pails.

DIRECTIONS FOR USE

Add ACCELGUARD 90 with water and aggregate to the ready mix concrete truck, but do not dispense onto dry cement. For temperatures 20°F to 40°F (-7° to 17°C) add to concrete at the rate of 10-90 oz/cwt (625-5600 ml/100 kg) of cement, depending upon the desired rate of acceleration, early strength gain, stripping schedule, etc. When air temperatures are below 50°F (10°C) follow ACI 306, "Recommended Practice for Cold Weather Concreting".

The Euclid Chemical Company recommends the contractor follow typical cold weather masonry practices. Please refer to "Recommended Practices for Cold Weather Masonry Construction" as published by International Masonry Industry All-Weather Council or "Cold Weather Concrete Masonry Construction" as published by the National Concrete Masonry Association (publication TEK 16B).

For information regarding freeze resistant concrete, please contact your local Euclid Chemical sales representative.

CLEAN-UP

Clean tools and equipment with water before concrete hardens.

PRECAUTIONS / LIMITATIONS

- Protect from freezing during storage.
- If material has frozen do not use. This material cannot be reconstituted.
- Do not dispense directly onto dry cement.
- Keep concrete from freezing until a minimum of 1000 psi (7 MPa) is achieved.
- **Note: ACCELGUARD 90 must be stored at 50°F (10°C) or above.**

Form Accelguard 90-10.00

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