

LUBRICON® NCA

Water-reducing accelerating admixture

ASTM C494 Type C and E

Product Description

Lubricon® NCA is a non-chloride, set-accelerating, water-reducing admixture, conforming to ASTM C494 Type C and E. Lubricon NCA does not contain calcium chloride and is non-corrosive to reinforcing steel, metal decks and metal components of admixture storage and dispensing systems. Lubricon NCA significantly accelerates setting time, and reduces the quantity of mixing water necessary to produce concrete of a given consistency, while providing greater economy for a given strength. It increases strengths and significantly improves permeability, workability and finishing characteristics. One gallon of Lubricon NCA weighs approximately 11.8 lbs (1.41 kg/L).

Applicable Standards

Lubricon NCA meets and exceeds the requirements of ASTM C494 Type C and E; CRD C 87; and AASHTO M 194.

Product Advantages

- Accelerates setting time
- Increases strength gain
- Significantly improves permeability, workability and finishing characteristics
- Completely non-corrosive
- Complies with ASTM C494 Types C and E

Addition Rates

Typical addition levels of Lubricon NCA range from 10 to 32 oz/100 lbs (650 to 2100 mL/100 kg) of cement material, depending upon degree of acceleration desired.

Compatibility with Other Admixtures and Batch Sequencing

Lubricon NCA is compatible with most Grace admixtures as long as they are added separately to the concrete mix, usually through the water holding tank discharge line. In general, it is recommended that Lubricon NCA be added to the concrete mix near the end of the batch sequence for optimum performance. Different sequencing may be used if local testing shows better performance. Please see Grace Technical Bulletin TB-0110, *Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations. Lubricon NCA should not come into contact with any other admixture before or during the batching process, even if diluted in mix water.

Pretesting of the concrete mix should be performed before use, and as conditions and materials change in order to assure compatibility, and to optimize dosage rates, addition times in the batch sequencing and concrete performance. For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent (such as Daravair® or Darex® product lines) is recommended to provide suitable air void parameters for freeze-thaw resistance. Please consult your Grace representative for guidance.

Advantages in Plastic Concrete

- Accelerates setting time
- Increases strength gain
- Reduces mix water for a given consistency
- Improves workability
- Improves placing and finishing characteristics
- Reduces costs by allowing decreased finishing time and earlier strength gain

Advantages in Hardened Concrete

- Increases early age compressive and flexural strength
- Reduces permeability, increases watertightness
- Provides improved finished appearance
- Enables earlier stripping time of forms and framing, earlier structural use of concrete

Packaging & Handling

Lubricon NCA is currently available in bulk quantities, by Grace metered systems, or in 55 gal (210 L) drums. Lubricon NCA freezes below approximately -10°F (-23°C), but its set acceleration, strength gain and non-corrosive properties are completely restored by thawing and thorough agitation.

Typical Acceleration of Initial Set

Dosages per 100 lbs cementitious material				
Temperature	15 oz	20 oz	25 oz	40 oz
30–40°F	1:30	1:50	2:20	2:45
40–50°F	1:00	1:30	2:00	2:30
70–80°F	:20	:30	1:00	1:15

Dispensing Equipment

A complete line of accurate dispensers is available. Lubricon NCA may be introduced on the sand, in the water, or at the end of the batch cycle. Similar to all concrete admixtures, Lubricon NCA should not come into contact with other admixtures prior to entering the concrete.

Specifications

The set-accelerating admixture shall be Lubricon NCA non-corrosive, non-chloride, water-reducing set accelerator, as manufactured by Grace Construction Products. The admixture shall be used in strict accordance with the manufacturers' recommendations. The admixture shall comply with ASTM Designation: C494, Type C and E and will not contain purposely added chlorides or contribute to steel corrosion. Certification of compliance will be made available upon request.

Concrete shall be proportioned in accordance with *Recommended Practice for Selecting Proportions for Normal Weight Concrete*, ACI 211.1 or *Recommended Practice for Selecting Proportions for Structural Lightweight Concrete*, ACI 211.2, or in accordance with ACI 318.

www.graceconstruction.com

North American Customer Service: 1-877-4AD-MIX1 (1-877-423-6491)

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