



CA-A1

CALCIUM CHLORIDE ACCELERATOR

DESCRIPTION

CA-A1, calcium chloride, is the most widely used accelerator for Portland cement. Its properties are:

Form	White Flakes, prills Or powder, 94% active
Specific Gravity	Approx. 2.2
Molecular Weight	110.99
Melting Point	772 °C

APPLICATION

CA-A1 is a total accelerator for Portland cement, meaning that it reduces thickening time and also increases early compressive strength development. The product is always an accelerator at any amount so care must be taken not to exceed the recommended concentration.

One pound of CA-A1 added to water or with cement in a slurry will increase the temperature of one barrel of slurry by about 1° F. This must be taken into account when mixing because the thickening time of the slurry can be affected.

RECOMMENDED TREATMENT

Normal treatment of CA-A1 in fresh water runs from 2 to 4% by weight of dry cement. Care is required in measuring as the addition of 5% or more may cause the slurry to flash set. Two percent, considered the optimum concentration, will reduce the thickening time by half and will increase the early strength by 50 to 75%. CA-A1 is compatible with most cement additives but not with CA-FL7 or Diacel LWL.

CA-A1 can be added to the mix water before the cement job or dry-blended with the cement. Any caking of CA-A1 must be pulverized before the dry blending operation. Large lumps will not dissolve as fast and may plug equipment.



HANDLING

Goggles and rubber gloves should be worn while handling. CA-A1 is irritating to the eyes and can cause corneal injury. In case of eye contact, flush eyes with water for 15 minutes and get medical attention. The solid product is only mildly irritating to the skin but readily takes up moisture to form a strong solution which could cause a burn. Wash affected areas with soap and water. Wash contaminated clothes before reuse.

PACKAGING

CA-A1 is available in 100 lb sacks.

CA-A1 is a Messina trademark

