# CLARENA® CM150C

Clay Mitigating Solution for Concrete

## Product Description

The CLARENA® CM150C family of products is a new class of materials specifically designed and formulated to meet the needs of the concrete producer.

Designed to selectively react with clay contaminants in both coarse and fine aggregates, this highly engineered, irreversible chemical reaction can eliminate the negative effects of clay-bearing sands and aggregates in concrete.

## Advantages

- Enables and enhances use of PCE-based admixtures
- Increased slump and/or strength depending upon targeted objective
- Enables use of lower-quality, currently marginal materials

## Typical Properties

| WRDA P4 | |
|---|---|
| Appearance | Colourless to pale yellow liquid |
| Specific Gravity | 1.15 |
| pH | 5 - 8 |
| Freezing Point | -3°C |
| Storage Temperature | 30°C |
| Shelf Life | 12 months |

## Benefits

Even a relatively trace presence of clay in a concrete mix can have a two-fold negative impact. Firstly, the mix will have a higher water demand due to the clay's absorbency.

Normally, this increased water demand would be addressed through superplasticizing admixtures; however, the secondary negative impact of clay is its affinity for polycarboxylate (PCE) molecules, which diminishes the efficacy of PCE-based admixtures. CLARENA® CM150C reacts with the clay particles, eliminating the PCE affinity, and enabling PCE-based admixtures to work with increased efficiency.

## Method Of Use

CLARENA® CM150C is designed to be used as received. Further dilution is not recommended unless exceptional circumstances exist at a given site. In most instances, CLARENA® CM150C products can be administered by pre-dosing onto clay-containing sand or aggregates, or by dosing directly into the mixer.

When CLARENA® CM150C is added at the concrete batching plant, it should be added at the beginning of the loading sequence so that it can come into contact with the aggregates and water before any admixture is introduced to the mix.

Please contact GCP Applied Technologies for further assistance in determining the best application and dosing sequence to meet your specific needs.

## Dosing Equipment

CLARENA® CM150C should be proportioned through a calibrated dosing system suitable for the dosage and throughput at a given site.

Recommended equipment designs are available from GCP.

## Addition Rates

The addition rate of CLARENA® CM150C is a direct function of the amount of clay contained within your specific concrete mix. GCP Applied Technologies can assist you in determining the appropriate dosage by testing your constituent materials to determine their clay content, and calculating the appropriate dosage.

## Compatibility

Significant material and process variability can exist when producing concrete. The compatibility of CLARENA® CM150C products should be verified in all end-use applications prior to full-scale use.

## Storage

CLARENA® CM150C should be stored in a shaded area not exposed to direct sunlight. Should area's storage be exposed to freezing temperatures, provisions should be made for insulating and heating in order to prevent excess viscosity and to aid pump-ability.

## Health and Safety

All precautions defined on the Safety Data Sheet (SDS) must be followed at all times.

## Technical Service

Field Engineers from GCP are available to assist in laboratory and plant evaluations of CLARENA® CM150C. Please contact your local GCP representative for further assistance.





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