

# DARACEM<sup>®</sup> 19 CFMO

Concrete Superplasticiser

## Product Description

DARACEM<sup>®</sup>19 CFMO is a high performance liquid concrete superplasticiser that has been developed to impart extreme workability to concrete mixes so that large or difficult pours can be made, whilst maintaining excellent slump retention properties, especially under hot climatical conditions. The product has minimal set retardation characteristics.

DARACEM 19 CFMO can also be utilized to effect large water reductions thus achieving high performance in both plastic and hardened states.

DARACEM 19 CFMO is an extremely powerful deflocculating agent and performs by dispersing cement into its primary particles, dramatically increasing flow characteristics of the cement paste.

Main applicational areas are:

- High quality concrete for durable structures
- Bridge deck slabs • Silica fume concrete
- Pozzolanic and blast furnace slag concretes
- Reinforced and pre-stressed precast elements
- Piling and in-situ structures DARACEM 19 CFMO meets the requirements of ASTM C494 Type D and G, BS EN 934-2 and ASTM C1017.

## Product Advantages

- High compressive strength concrete especially at early ages
- High workability concrete mix with DARACEM 19 CFMO will have the same or higher compressive strength compared to plain concrete of similar w/c ratio.
- Plastic concrete exhibits high cohesion, fluidity and flowability
- Excellent slump retention properties even at high ambient temperatures, whilst exhibiting minimal set retardation
- Addition of DARACEM 19 CFMO to plain concrete allows a water reduction of up to 30%.
- Low w/c ratios lead to excellent durability of concrete.
- Good surface finish, providing highly aesthetic concrete appearance

## Typical Properties

|                  |                   |
|------------------|-------------------|
| Appearance       | dark brown liquid |
| Specific Gravity | 1.25 at 20°C      |
| Air Entrainment  | 0.5%              |
| Chloride Content | Nil               |

## Method of Use

DARACEM 19 CFMO is supplied ready for use, and should be added to concrete mixes either during the mixing cycle or at the same time as the water, or alternatively it should be added in its supplied form to a normal concrete mix a few minutes before the pour is made.

In the latter case a mixing cycle of at least 2 minutes should be provided to ensure complete dispersion.

## Compatibility with Cements

DARACEM 19 CFMO is compatible with all Portland, Pozzolanic and Blast furnace cements. It is also compatible with concrete containing fly ash and or silica fume.

## Compatibility with other Admixtures

DARACEM 19 CFMO should not be premixed under any circumstances with other admixtures. While some admixtures can be usefully combined within the same mix the performance of this product may well be affected by the presence of other chemicals and we recommend that GCP Applied Technologies be contacted for advice in all such circumstances.

## Addition Rates

Range: 0.60%–3.5% volume by weight of cement

The optimum dosage is assessed after preliminary trials depending upon the actual mix constituents and specifications required. Addition rates outside of the recommended dosage range may be used for special concrete applications. In such circumstances it is important to conduct preliminary trials on the actual mix constituents to assess the effect on the properties of the concrete at the dosage level specified.

## Effects of Overdosing

Serious overdosing of DARACEM®19 CFMO will generally produce a concrete mix of even greater workability. Set retardation and a slight increase in air entrainment may be noticed. In SRC mixes and cooler weather, set retardation will be further increased. If intentional or accidental increases above the recommended addition rates are encountered, care must be taken to allow for the effect on the stripping time of formwork. In such cases, however, provided the concrete is properly cured, the ultimate strength will generally be higher than for normal concrete.

## Dispensing

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment, details of which can be supplied upon request.

## Health and Safety

For further information see the DARACEM 19 CFMO GCP or consult GCP.

## Packaging

DARACEM 19 CFMO is supplied in 210 litre, non-returnable containers. Alternatively, 1000 litre IBCs and bulk deliveries can be arranged.

## Storage

DARACEM 19 CFMO should be stored in original containers or suitable closed tanks, preferably out of direct sunlight and protected from extremes of temperature. Storage Life in Manufacturer's Drums: 12 months from the date of manufacture Storage Life in Bulk Storage: 12 months from the date of delivery.

## Technical Service

The Technical Service Department of GCP is available to assist you in the correct and best use of our products. These resources and advice are at your disposal entirely without obligation. Please contact:

### GCP

#### Emirates Chemicals LLC

Festival Tower, Suite 1701 Dubai Festival City P.O. Box 5006

Dubai, United Arab Emirates

Tel: +971 4 2329901

Fax: +971 4 2329940

Email: [meinfo@grace.com](mailto:meinfo@grace.com)

[gcpat.ae](http://gcpat.ae) | United Arab Emirates customer service: +971 4 5139560

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

DARACEM is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2018 GCP Applied Technologies Inc. All rights reserved.

GCP0082-1216 DARACEM 19 CFMO-UAE

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

P. O. Box 5006, Office 2104, 21 Floor, The Exchange Tower, Opp. JW Marriott Marquis Hotel, Business Bay, Dubai – United Arab Emirates

This document is only current as of the last updated date stated below and is valid only for use in the UAE. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on [www.gcpat.ae](http://www.gcpat.ae). Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2022-11-18

[gcpat.ae/solutions/products/daracem-19-cfmo](http://gcpat.ae/solutions/products/daracem-19-cfmo)