

# DARACEM<sup>®</sup> 100

Superplasticiser for the production of high workability concrete

---

## Product Description

DARACEM<sup>®</sup>100 is an aqueous solution of chemical dispersants combined with other chemicals which increases its beneficial effects on the quality and plasticity of a concrete mix.

Daracem 100 is the first high range water reducer specially formulated for extended slump life. Conventional superplasticisers normally provide only 25 to 45 minutes of slump increase before the concrete begins to lose workability. Daracem 100, however, extends the time span of the slump increase up to twice as long or longer.

Daracem 100 is a chemical admixture meeting the requirements of the following chemical admixture specifications for concrete: ASTM C494 Type F and Type G; BS 5075: Part 3: 1985; AS 1478 and 1479 Re and WRRe. One litre weighs approximately 1.20kg ± 0.02kg

## Chemical Action

Daracem 100 neutralises the surface charges on cement particles causing extreme dispersion, resulting in complete, efficient cement hydration which, in turn, greatly increases strength development.

## Product Advantages

- Exceptional workability and flowability.
- Improved slump retention in flowable concrete.
- Good placeability into forms and around reinforcing steel.
- Early achievement of form stripping strengths.
- Reduced energy requirement for precast/prestress work.

## Applications

Daracem 100 provides improved slump retention in flowable concrete. It is ideal for low water-cement ratio concrete designed for high early compressive and flexural strengths with exceptional workability and flow characteristics.

Because of its unique ability to draw maximum effect from the cement content of a mix, it frequently gives performance with a Type I cement comparable to that of a Type III cement.

It can be used in precast/prestress work to reduce the high energy requirement of external heat for accelerated curing. Daracem 100 helps to solve difficult placeability problems such as dense rebar networks or constricted forms and job conditions requiring that the concrete be transported or pumped for long distances. Even at high slump, the concrete consolidates well without segregation. Daracem 100 concrete reaches stripping strengths quickly and finishes easily without the stickiness, tearing and surface drying characteristics sometimes experienced with other high range water reducers.

## Compatibility with Other Admixtures

Daracem 100 treated concrete should use a Wood Resin air-entraining agent, (such as DARAVAIR®) or a tall oil derivative air entrainer (such as DAREX®/AEA®) for proper air void parameters to provide resistance against freeze-thaw attack.

Pretesting of the concrete should be performed to optimise dosage rates, determine mix design and setting characteristics. Admixtures should not be in contact with each other before entering the concrete. Pretesting to determine optimum addition rates will benefit performance.

## Health and Safety

See Daracem 100 Material Safety Data Sheet or consult GCP Applied Technologies.



## Addition Rates

Daracem 100 can be added at variable addition rates to suit job requirements. The normal dosage range is 400 to 1,200mL / 100kg of cementitious material. In the lower range, Daracem 100 meets the requirements for an ASTM C 494 Type F waterreducing, high range admixture and at the upper range for a Type G water-reducing, high range and retarding admixture. Varying addition rates may give added slump variances to match placement needs. Should job conditions require more than recommended addition rates, please consult your local GCP representative.

## Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product.

## Packaging

Daracem 100 is available in bulk and in 205L drums.

Daracem 100 contains no flammable ingredients.

It will begin to freeze at 0°C but will reconstitute to full strength after thawing and agitation. In storage and for trouble-free dispensing, Daracem 100 should be maintained at temperatures above 4°C.

[th.gcpat.com](http://th.gcpat.com) | Thailand customer service: 66 2 030 9700

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, Daravair, Darex and AEA are trademarks, 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 2017 GCP Applied Technologies, Inc. All rights reserved.

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

GCP Applied Technologies Holdings (Thailand) Limited., 848 Moo 2, Bangpoo Industrial Estate (North), Phraksa Mai, Muang Samutprakarn, Samutprakarn 10280, Thailand

This document is only current as of the last updated date stated below and is valid only for use in Thailand. 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.th.gcpat.com](http://www.th.gcpat.com). 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: 2023-07-07

[th.gcpat.com/solutions/products/daracem-100](http://th.gcpat.com/solutions/products/daracem-100)