

# DARACEM<sup>®</sup> 136

Superplasticiser

#### **Product Description**

DARACEM<sup>®</sup>136 is an aqueous solution of chemical dispersants combined with other chemicals which increase its beneficial effects on the quality and plasticity of a concrete mix.

Daracem 136 is a high range water reducer, commonly referred to as a superplasticiser. It is an aqueous solution of a modified naphthalene sulfonate. It is a low viscosity liquid which has been formulated by the manufacturer for use as received. Daracem 136 contains no added chloride. Daracem 136 is formulated to comply with the following chemical admixture specifications for concrete: BS 5075: Part 3: 1985; SS 320:1987; ASTM C494 Type F.

One litre of Daracem 136 weighs approximately 1.26kg  $\pm 0.02$ kg.

#### Dispersion

Daracem 136 is a superior dispersing admixture having a marked capacity to disperse the cement agglomerates normally found in a cement-water suspension. The capability of Daracem 136, in this respect, exceeds that of normal water-reducing admixtures.

#### Product Advantages

- Daracem 136 can produce high slump flowable concrete at no loss in strength.
- Daracem 136 can produce low water-cement ratio concrete and therefore, high strengths.
- Daracem 136, in prestress/precast work, can be used to substantially reduce or eliminate the high energy requirements of external heat for accelerated curing.
- Daracem 136 concrete produced with Type I cement may be substituted for normal concrete produced with Type III cement to achieve early release strengths.
- Daracem 136 concrete, even at high slump, exhibits no significant segregation in comparison to concrete without a superplasticiser at the same slump.
- Daracem 136 aids in rapid discharge of concrete from truck mixers thereby reducing on the job-time and improving mixer utilisation.

#### Applications

Daracem 136 produces concrete with extremely workable characteristics referred to as high slump, flowing concrete. Daracem 136 also allows concrete to be produced with very low water-cement ratios at low or normal slumps.

Daracem 136 is ideal for use in prestress, precast, bridge deck or any concrete where it is desired to keep the watercement ratio to a minimum and still achieve the degree of workability necessary to provide easy placement and consolidation. Daracem 136 will also fluidise concrete making it ideal for tremie concreting or other applications where high slumps are desired.



#### Addition Rates

Addition rates of Daracem 136 can vary with type of application, but will normally range from 500 to 1,200mL / 100kg of cementitious material. At a given water-cement ratio, the slump required for placement can be controlled by varying the addition rate. Should job site conditions require using more than recommended addition rates, please consult your local GCP representative.



#### Compatibility with Other Admixtures

In concrete containing Daracem 136, the use of an air-entraining agent (such as DARAVAIR® or DAREX®AEA®) is recommended to provide suitable air void parameters for resistance against freezethaw attack. Most water reducers or water-reducing retarders are compatible with Daracem 136 as long as they are separately added to the concrete. Pretesting of the concrete should be performed to optimise dosages and addition times of these admixtures.

Caution should be exercised when using Daracem 136 together with a retarder, as excessive retardaion can occur if the admixture dosages are too high. The admixtures should not be in contact with each other before they enter the concrete.

## Packaging

Daracem 136 is available in bulk, and in 205L drums. It contains no flammable ingredients.

It will begin to freeze at approximately 0°C, but will return to full strength after thawing and agitation.

In storage and for proper dispensing, Daracem 136 should be maintained at temperatures above 0°C.

## Health and Safety

See Daracem 136 Material Safety Data Sheet or consult GCP Applied Technologies.



#### gcpat.id | For technical information: asia.eng@gcpat.com

44 6624 2308 Manesar +91 124 488 5900 Indonesia +62 21 893 4260 Japan +81 3 5226 0231 Korea +82 32 820 0800 Malaysia +60 3 9074 6133 Philippines +63 49 549 7373 Singapore +65 6265 3033 Thailand +66 2 709 4470 Vietnam +84 8 3710 6168

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, Darex, Daravair 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

PT GCP Applied Technologies Indonesia, Cikarang Industrial Estate Kav C-32, Cikarang, Bekasi 17530

This document is only current as of the last updated date stated below and is valid only for use in Indonesia. 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.id. 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.