

Daracem[®] S31M

Superplasticiser for the production of high workability concrete

Product Description

Daracem[®] S31M is a ready-to-use aqueous solution of a modified naphthalene sulfonate. Daracem S31M is a high range water reducer, commonly referred to as a superplasticiser. It is a low viscosity liquid, which has been formulated by the manufacturer for use as received. Daracem S31M contains no added chloride. Daracem S31M is formulated to comply with the chemical admixtures specifications for concrete: ASTM C494 Type F. One litre of Daracem S31M weighs approximately $1.19\text{kg} \pm 0.02\text{kg}$.

Dispersion

Daracem S31M 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 S31M, in this respect, exceeds that of normal water-reducing admixtures.

Product Advantages

- Daracem S31M, in prestress/precast work, can be used to substantially reduce or eliminate the high energy requirements of external heat for accelerated curing.
- It is excellent for early strength development of slag cement concrete.
- It is compatible with a wide range of cements.
- It can produce high slump flowable concrete at no loss in strengths.
- It can produce low water-cement ratio concrete and therefore, high strengths.
- It aids in rapid discharge of concrete from truck mixers thereby reducing on-the-job time and improving mixer utilisation.

Application

Daracem S31M produces concrete with extremely workable characteristics referred to as high slump, flowing concrete. Daracem S31M also allows concrete to be produced with very low watercement ratios at low or normal slumps.

Daracem S31M is ideal for use in prestress, precast, readymix concrete, bridge deck or any concrete where it is desired to keep the water-cement ratio to a minimum and still achieve the degree of workability necessary to provide easy placement and consolidation.

Daracem S31M will also fluidise concrete, making it ideal for tremie concreting or other applications where high slumps are desired. Daracem S31M can help to optimise the total concrete costs, and enhance the production efficiency, especially for precast segments.

Compatibility with Other Admixtures

Most water reducers or water-reducing retarders are compatible with Daracem S31M 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. The admixtures should not be in contact with each other before they enter the concrete. Daracem S31M is recommended to be used in ambient temperatures above 15°C. Daracem S31M should not be used in concrete subject to more than 70°C heat curing. Daracem S31M is not to be used with polycarboxylate-based admixtures such as ADVA®.



Addition Rates

Addition rates of Daracem S31M can vary with type of application, but will normally range from 400 to 1,500mL / 100kg of cementitious material. In most instances the addition of 700 to 1,200mL / 100kg of cementitious material will be sufficient. When combined with Daratard® or WRDA®, Daracem S31M dosage rates can be effective from 100 to 1,000mL / 100kg of cementitious material, when added separately to the mix. At a given watercement ratio, the slump required for placement can be controlled by varying the addition rate. Should job site conditions required using more than recommended addition rates, please consult your GCP representative

Packaging

Daracem S31M is available in bulk and in 205L drums. Daracem S31M 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 S31M should be maintained at temperatures above 0°C.

Dispensing Equipment

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

Health and Safety

See Daracem S31M Material Safety Data Sheet or consult GCP Applied Technologies

th.gcpat.com | Thailand customer service: 66 2 030 9700

Australia 1800 855 525 New Zealand +64 9 448 1146 China Mainland +86 21 3158 2888 Hong Kong +852 2675 7898 India: Chennai +91 44 6624 2308 Delhi +91 124 402 8923 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, WRDA, Daratard and ADVA 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., 62 Whittemore Avenue, Cambridge, MA 02140, USA

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. 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: 2018-08-27

th.gcpat.com/solutions/products/daracem-s31m