

POLARSET[®] NC 300

Non-chloride early strength enhancing admixture

Product Description

POLARSET[®] NC 300 is a chloride-free early strength enhancing admixture for concrete. In addition to enhancing early strength growth POLARSET NC 300 also accelerates the setting time of concrete. POLARSET NC 300 has been formulated to comply to the requirements of the Australian Admixture Standard, AS 1478 Type SAc classification. It has a specific gravity of 1.460. One litre weighs approximately 1.460kg +- 0.02kg.

Applications

POLARSET NC 300 is specifically used to accelerated the growth of concrete strength in the first 8-16 hrs and to reduce the setting times of concrete (particularly in cooler months) by 1 to 3 hrs. POLARSET NC 300 can be used to fast track finishing operations and/or form removal leading to savings in concrete construction costs. POLARSET NC 300 can be used in any Portland cement mixes including mixes that use SCM.

POLARSET NC 300 can be used during cold weather concreting when early strengths are required and accelerated sets need to be meet. POLARSET NC 300 can be used in Prestressed/Precast concrete to reduce cycle times or heat curing times. POLARSET NC 300 can be incorporated in a concrete mix to reduce the number of passes required to achieve a desired concrete finish.

Performance

In concrete mixes, POLARSET NC 300 accelerates the chemical reaction between Portland cement and water. It speeds up the formation of C-S-H gel, the binder that bonds concrete aggregates together. Accelerated gel formation in turn shortens the setting time of concrete, compensates for the set-slowing effects of cold weather and SCM and contributes to the development of higher early strengths.

Product Advantages

- Chloride free
- Increased production cycles
- Earlier de-moulding
- Mix cost optimisation
- Reduce or (assist in removing) - heat curing
- Fast setting times allowing for speed of production

Addition Rates

The dose rate of POLARSET NC 300 will depend on the specific job conditions, on local materials and on the degree of early strength development required and set acceleration needs. Typical addition rates are 500- 2000 mls/100kgTC. Higher dose rates can be considered for specific requirements. Trial mixes should be conducted in order to determine specific dose rate required for the desired performance.

Compatibility with Other Admixtures

POLARSET NC 300 is compatible with all air-entrainers such as Darex AEA, water reducers such as WRDA, mid-range water reducers such as Mira and High range water reducers such as ADVA from GCP Applied Technologies.

Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for POLARSET NC 300.

Packaging and Storage

POLARSET NC 300 is delivered in bulk, IBCs, 15 and 205 L drums. Protect from freezing. Once frozen, the product should be thawed out slowly and remixed. (prior to use)

Health and Safety

Read and understand the product label and Safety Data Sheet (SDS) if handling the product directly. All users should acquaint themselves with this information prior to working with the product and follow the precautionary statements. SDSs can be obtained by contacting your local GCP representative or office.

gcpat.com.au | Australia customer service: 1 800 855 525 – SCC

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.

ADVA, POLARSET, MIRA and WRDA 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 2024 GCP Applied Technologies, Inc. All rights reserved.

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

GCP Australia Pty. Ltd., 14 Colebald Street West, Archerfield, Brisbane, Queensland 4108, Australia

This document is only current as of the last updated date stated below and is valid only for use in Australia. 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.com.au. 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: 2024-08-21

gcpat.com.au/solutions/products/polarset-nc-300