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.

Last Updated: 2024-08-21
gcpat.com.au/solutions/products/polarset-nc-300