

DARASET[®] AC50

Non-chloride set accelerator

Product Description

DARASET[®] AC50 is a chloride-free, accelerating admixture for concrete which accelerates cement hydration resulting in shortened setting times.

DARASET AC50 is an aqueous solution of organic and inorganic compounds, and does not contain any chloride components such as calcium chloride.

DARASET AC50 is manufactured under controlled conditions to produce a consistent product which ensures uniform predictable performance when used.

DARASET AC50 has been formulated to comply to the requirements of: Australian Admixture Standard 1478 Type AC Classification.

Applications

- DARASET AC50 may be used to speed finishing operations and/or form removal, leading to savings in concrete construction costs.
- DARASET AC50 can be used in any Portland cement mixes and produces similar results when mixed in mortar
- Cold weather concreting when accelerated set times are required
- Prestressed/Precast concrete to reduce cycle times or heat curing times
- In any concrete where earlier use of the concrete is required

Product Advantages

- Chloride-free
- Reduced finishing/setting times
- Mix economics
- Reduced construction costs

Advantages

- DARASET AC50 non-chloride set accelerator provides accelerated finishing times, especially in low temperatures.
- DARASET AC50 is used wherever it is desirable to reduce the setting time of concrete. Typical results show that when concrete containing DARASET AC50 is poured at 10°C, the concrete will set up to 2 hours quicker than reference concrete.

- When DARASET AC50 is used in a mix that is designed with pozzolans, such as fly ash and slag, acceptable finishing times are achieved during low temperatures, thus optimising mix costs.
- With quicker set times over reference concrete, DARASET AC50 can be used to speed up finishing operations and/or form removal, leading to savings in concrete construction costs.
- In the manufacture of prestressed/precast concrete, earlier removal of forms leads to reduced cycle times, faster mould turnaround and reduced cost. The accelerated set times of concrete containing DARASET AC50 may allow a reduction in curing temperatures or shortened heat curing times in precast operations.

Addition Rates

DARASET AC50 may be used from 500 to 2,000mL / 100kg total cementitious material. The exact dosage depends on the specific job conditions, on local materials, on the degree of set acceleration required and on the type of water reducer used. Typical dose rate is 500 to 1,500mL / 100kg of cementitious material. Trial mixes should be conducted in order to determine specific dose rates required for the desired performance.

Triethanolamine is present at less than 0.025% for a dose rate of 100mL / 100kg total cementitious material in a concrete mix.

Compatibility with Other Admixtures

DARASET AC50 is compatible in concrete with all GCP 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 DARACEM[®].

DARASET AC50 is compatible with all known admixture types currently available, but should be added to the mix separately and not premixed prior to addition.

Dispensing Equipment

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

Packaging and Storage

DARASET AC50 is delivered in bulk and in 205L drums.

Protect from freezing. Once frozen, the product should be thawed out slowly and remixed thoroughly prior to use.

Health and Safety

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

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

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

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