

DARACCEL[®] 37M

Set-accelerating admixture

Product Description

DARACCEL[®] 37M is a set-accelerating admixture formulated to provide accelerated set during low ambient temperatures whilst increasing early and final strengths.

DARACCEL[®] 37M is an aqueous liquid solution of inorganic calcium chloride that is manufactured under controlled conditions to produce a consistent product which ensures uniform and predictable performance when used. DARACCEL [®] 37M contains no triethanolamine.

Advantages

- DARACCEL[®] 37M offers significant advantages as a concrete set accelerator.
- DARACCEL[®] 37M will reduce the setting time of concrete thus enabling earlier finishing times to be achieved, especially at low ambient temperature, when concrete temperatures are low. Finishing times can be reduced by up to 3 hours when DARACCEL[®] 37M is used.
- DARACCEL[®] 37M will increase early and later age compressive strengths. Early strengths can be increased by over 25% compared to non-accelerated concrete. Increased early strengths will enable the earlier removal of form work.
- When DARACCEL[®] 37M is used in concrete, that is designed with pozzolans such as fly ash and slag, acceptable finishing times and early strengths are achieved, thus optimising costs.

Product Advantages

- Accelerated set times
- Increases compressive strengths
- Mix economics

Specification Type

- DARACCEL[®] 37M complies to the requirements of Australian Standard as:
- 1478 Type Ac. (Appendix B4, class C (i))
- Refer Appendix B9.3

Benefits

- Controlled, predictable acceleration of set during low ambient temperatures
- Early form removal or early use of concrete
- Bleed reduction due to the greatly improved setting times
- Denser, less permeable concrete



- Effective over a wide range of cementitious contents and mix designs
- Used in conjunction with Type GB cements (and mixes that contain fly ash) to offset slowsetting times
- Temperature of hot water used in winter mixes can be reduced to an optimum level

Compatibility

DARACCEL® 37M is compatible with all Portland cement systems, including fly ash, slag and limestone blends.

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

Addition Rates

DARACCEL[®] 37M addition rate will normally range from 1,000 to 4,000mL / 100kg total cementitious, depending on mix properties required. In order to determine the optimum dose rate of DARACCEL[®] 37M, either on its own or in conjunction with other admixtures from GCP Applied Technologies, trials are recommended.

In general terms "1% Calcium Chloride" is achieved by using a dose of 2,000mL / 100kg T.C. and "2% Calcium Chloride" is achieved by using a dose of 4,000mL / 100kg T.C. For advice and technical assistance, please consult your local GCP representative.

DARACCEL [®] 37M dose (ml/100kg)	NIL	500	1000
Initial Set (20°C) (Hr Min)	6-20	5-30	4-30
Initial Set (10°C) (Hr Min)	10-10	8-30	7-00
7 day Compressive Strengths (Mpa)	12.5	15.5	16.5
28 day Compressive Strengths (Mpa)	23.0	24.5	25.5





Typical Applications

- DARACCEL[®] 37M can be used in virtually all concrete and masonry applications to achieve economic advantage, such as:
- Flatwork and house slabs
- Pumped concrete
- Concrete floors poured inside on plastic with limited or no air flow
- Applications using GCP MicroFiber™
- Manufacture of concrete blocks, bricks, pavers and roof tiles

Dispensing Equipment

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

Chloride Ion

DARACCEL® 37M contains a moderate level of chloride ion.

A dose of 1,000mL / 100kg T.C. will contribute 316 grams of chloride.

DARACCEL[®] 37M is not recommended in post-tensioned or pretensioned concrete, reinforced concrete with inadequate cover and concrete near marine environments.

DARASET[®]AF (a non-chloride accelerator) is available for these applications.

Packaging and Storage

DARACCEL[®] 37M is delivered in 205L drums, 1,000L bulk boxes and by metered bulk tanker. Shelf life is minimum 12 months.

Safety Information

A Material Safety Data Sheet is available on request. DARACCEL® 37M is not flammable.

Test Data

Cementitious content	310kg / m ³
Type GP/fly ash	(220/90)
Slump	80mm



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