

# DARACCEL<sup>®</sup> 40

Set accelerator

# **Product Description**

DARACCEL<sup>®</sup> 40 is a set-accelerating admixture formulated to provide accelerated set during low ambient temperatures whilst increasing early and final strengths.

DARACCEL 40 is an aqueous liquid solution that is manufactured under controlled conditions to produce a consistent product which ensures uniform and predictable performance when used.

DARACCEL 40 complies as a Type Ac according to AS 1478.

## Advantages

- DARACCEL 40 offers significant advantages as a concrete set accelerator.
- DARACCEL 40 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.
- DARACCEL 40 will increase early and latter age compressive strengths. Early strengths can be increased compared to non-accelerated concrete. Increased early strengths will enable the earlier removal of form work.
- When DARACCEL 40 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

## 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 slow setting times.
- Temperature of hot water used in winter mixes can be reduced to an optimum level.

# **Typical Applications**

DARACCEL 40 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
- Concrete roads
- Liquid Fill (DARAFILL<sup>®</sup> Applications)
- Applications using SINTA™ M (formely GRACE MICROFIBERS™)
- Manufacture of concrete blocks, bricks, pavers and roof tiles

# Compatibility

DARACCEL 40 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 40 addition rate will normally range from 1,000 – 3,000mL / 100kg total cementitious, depending on mix properties required. In order to determine the optimum dose rate of DARACCEL 40, either on its own or in conjunction with other GCP admixtures, trials are recommended.

# **Dispensing Equipment**

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

## Chloride Ion

DARACCEL 40 contains chloride ions.

A dose of 1,000mL / 100kg total cementitious content will contribute 230 – 250g / 100kg total cementitious. . DARACCEL 40 is not recommended in post-tensioned or pre-tensioned concrete, reinforced concrete with inadequate cover and concrete near marine environments.

DARASET<sup>®</sup> NC 90 (a non-chloride accelerator) is available for these applications.

## Packaging & Storage

DARACCEL 40 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 40 is not flammable.



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