



KEM CRETESET 300 P

Alkali-free non caustic & non toxic high performance powder accelerator for drymix shotcrete

Ref: CA/SA-V1- 0713

Description

KEM Creteset 300 P is a high performance alkali-free, non caustic and non toxic accelerator for the use in drymix shotcrete processes. It is a powder additive whose dosage can be varied to the desired setting and hardening times.

Uses

KEM Creteset 300 P is suitable for all applications where high early strength, high final strength and large thickness are required:

- For temporary and permanent rock support.
- For final lining (one pass lining).
- For repair works.
- In tunnels.
- In mining.

Advantages

The quick setting properties allow:

- Overhead layer thicknesses of 100 -150 mm in a single application.
- Rapid work progress.

The unique formula :

- Provides good early strength development
- Limits the decrease of final strength
- Improves durability as compared to mixes with traditional accelerators

The non caustic and non toxic nature of the product:

- Prevents skin burns and provides an improved working environment.
- Reduces required handling precautions and hence improves economy.
- Reduces salt content in leaching water.

Typical Properties

Aspect : White powder

Bulk density : 500 – 700 kg/m³

Chloride Content : < 0.1%

Direction for use

Surface preparation: The substrate must be clean and free from loose particles and only lightly sprinkled.

Sensitivity to cement :

Age: It is recommended to only use fresh cement since the age of the cement can have a negative influence on the setting characteristics of the mix.

Type: KEM Creteset 300 P is sensitive to the type of cement. With some cements the obtained setting characteristics can be too slow. This sensitivity can be compensated by lowering the w/c ratio. We recommend the use of OPC (Ordinary Portland Cement) or RHPC (Rapid Hardening Portland Cement) which will normally give faster setting characteristics than Blended Cements or SRC (Sulphate Resistant Cement).

In any case, it is strongly recommended to do preliminary tests to check the setting time and the 24 hour strength characteristics of the cement type used in the project. Evaluation of setting and 24 hour strength characteristics:

Initial Set	Final Set	24 Hour Strength	Rating
2 min.	6 - 8 min.	18 - 20 Mpa	Good
5 min.	8 - 12 min.	12 - 15 Mpa	Ok
>10 min.	> 15 min.	> 10 Mpa	Poor

Remarks: If the setting times are poor, the 24 hour strength is usually good. With a slow setting it is possible to apply 50-70 mm on the vertical and 30-50 mm overhead.



Mixing : The minimum cement content with the use of KEM Creteset 300 P is 350 kg/m³ preferably it should be 400 kg/m³.

Placing : KEM Creteset 300 P is added to the mix immediately prior to use.

Dosage

The dosage of KEM Creteset 300 P depends on the temperature of concrete, air, substrate and reactivity of the cement being used. Depending on the required setting time and early strength requirements dosage of KEM Creteset 300 P will normally be in the range of 2-6% of cement weight. Over dosing, in excess of 10% will lead to lower final strengths. On site trials are recommended prior to use.

Packaging

25 Kg

Storage and Shelf life

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

Technical Service

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

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