

E.M.ANTIFREEZE-C COLD WEATHER CONCRETE ADDITIVE

DESCRIPTION

E.M.ANTIFREEZE-C is designed for cold weather concreting. The product combines actions of fast setting and preventing from freezing simultaneously as it accelerates the hardening of the concrete. It does not contain chlorides and other compounds which could cause corrosion of reinforcement.

ADVANTAGES

- Accelerate the progress of the thermal reaction of cement
- Accelerate the progress of the hydration reaction
- Accelerate the initial setting time
- Compatible with all types of Portland cement
- Increase initial and final compressive strength of concrete
- Chloride free

APPLICATION

- Cold weather concreting
- Particularly suitable for concreting in the temperature range between +5 and -15°C
- Suitable for all general repairing application particularly in cold weather

DOSAGE

To determine optimum dosage of E.M.ANTIFREEZE-C following the bottom tables:

Note: Decrease the mixing water by the same weight as quantity as the E.M.ANTIFREEZE- C. Without any variations in slump or any decrement in compressive strength under these conditions.

E.M.ANTIFREEZE-C			
Table of dosage of concrete antifreeze indicated as cement weight percentages			
Temperature(° C)	Cement (Kg/cm ³)		
	300	350	400
-5	2	1.5	1
-10	3	2.5	2
-15	4	3.5	3

Note: Please contact our engineering office in case of simultaneously use of more than one admixture.

DIRECTION OF USE

Take the following points into consideration when cold weather concreting:

- Ensure that the surfaces are completely frost-free.
- Remove all snow and ice from surface of forms.



موسسه استاندارد و تحقیقات صنعتی ایران
تائیدیه صلاحیت آزمایشگاه همکار



مرکز ملی تئید صلاحیت ایران
ISO / IEC 17025



مجوز صادرات
به اتحادیه اروپا



استاندارد ملی ایران



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- Surface of moulds must be heated to warm up more than 5°C.
- Keep the concrete temperature over than 6°C.
- It's better to mix E.M.ANTIFREEZE-C to water and added to dry mix.
- If you have applied ready mix concrete, E.M.ANTIFREEZE-C should be mixed in truck mixer and it use after mixed.
- During concreting, do not let any reduction in concrete temperature and it should not below +5 °C, otherwise it causes to stand the cement hydration activity.
- When the concrete temperature was less than 5 °C, increase dosage of E.M.ANTIFREEZE- C.

PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Color: Opaque white

Specific gravity: 1.07 ± 0.05 g/cm³

Chloride content: Nil to EN 934

STORAGE

Shelf life: 12 months in the original package

Storage condition: should be protected from direct sunlight and frost. Keep container in the temperature range between +10°C and +30°C.

Packaging: 22 kg container

HEALTH AND SAFETY

This product does not contain any hazardous substance to human health and the environment. However, it should not be swallowed and contacted with skin and eyes.

Rubber gloves, boots and goggles should be used during application. Accidental splashes on the skin should be washed with soap and water and any contaminated clothing removed.

Contact with eyes should be avoided and if any accidental contamination does occur they should be washed with copious amounts of water and medical attention sought.

ANTIFREEZE-C is not flammable.

For further information refer to the material safety data sheet. MSDS is available at ABADGARAN website.

TECHNICAL SERVICE

The ABADGARAN INTERNATIONAL GROUP Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

All data presented in this technical datasheet are based on our last researches in ABADGARAN CONSTRUCTION CHEMICALS laboratories and are just as a guide for choosing appropriate material. Therefore users should conduct a sufficient investigation to establish the suitability and conformity of any product for intended uses.



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