

Production

CODE

Precast

Adicem GR-220

Description

ADICEM GR-220, considered a synthetic liquid engineering addition for cement, contains silica (liquid suspension) and is free of chlorides. It is made with base of Biopolymers specially produced for **ADICEM GR-220**. Complies with the European Norms UNE 83300, 83301, 83303, 83304; North American such as ASTM C-494 Type F & G / AAHTO M-194 / CRD C-87 and Russian Federation Norms GOST.

ADICEM GR-220 for its chemical composition acts simultaneously by pozzolanic effect and by reduction in the water-cement ratio of the mixture. Can be used on all types of cement and concrete containing slag, fly ash and pozzolans as well as with Portland type Cements that meet ASTM specifications; AASHTO or CRD, European and GOST (Russian Federation).

Dosage

Apply 6 cc to 10 cc for each kilogram of Cement (0.6% to 1% of the weight of cement)



Changing the world of concrete that you know

Uses and Benefits

- Concrete for houses and all kind of Pre-fabricated products.
- Pre-stressed and Post-tensioned Concrete
- Concrete for works with a lot of iron
- Concrete with very little water content
- Fluid Concrete, High mechanical strength and Self-leveling
- Concrete exposed to saltpeter and sulfates

Superplasticizer, Waterproofing, Polycarboxylate.

Advantages: It offers great economy in cement consumption, replaces the functions of up to 4 additives, reduces the water content in the mixture (up to 50%) this will depend on the aggregates in the design of concrete, quality and type of cement used.

Controls the heat of hydration and increases the ease of placement without the use of ice or retarding additives or superplasticizers in the concrete. Extremely low permeability to Chloride and water intrusion. According to the European standard UNE 83309 and Russian Federation GOST.

Resistance to abrasion and chemical attacks superior to normal concrete. Decreases the loss of waste in the production of cement block. Extends the useful life of molds for prefabricated products.

Chemical Properties:

Liquid nature / Light yellowish to brown color

Density: 1.1 gr.

PH: 4.5 – 6.5

Content of solids: 29%

Content of Silica (SiO₂): 3.5% - 4.5% (liquid suspension, does not precipitate)

Special Features: Biopolymers specially manufactured for in **ADICEM GR-220** improve substantially the quality of the concrete or precast product to achieve maximum workability and/or plasticity and resistances in the shortest possible time. This allows the production and stripping of elements prefabricated in an average of 3 hours. Due to its complex chemical composition, it protects the reinforcing steel acting as an antioxidant film in the concrete. According to experiences in Situ, you can reduce the consumption of cement in concrete mixtures and at the discretion of the concrete producer from 15% and much more provided that it is under the advice of our technical department, without this means sacrificing the mechanical resistance and without diminishing the customary quality, thus achieving great savings. However, due to the effect that is generated by the rheology that occurs between the pozzolan and the chemical components in **ADICEM GR-220** in the structure of the mixture, concrete and mortar of a high degree of homogeneity, cohesiveness and durability are obtained with higher levels of resistance to flexion, compression and chemical attacks among others.

Protex Latinoamérica, S.A.

Manufacturer



Warning

The optimum dose of the product must be determined by testing the materials and conditions of the work.

Dosages higher than recommended can cause long delays, which will not affect the final strength of the concrete.

If it is required to make combinations with other additives, it is recommended to dose them separately in the mixture. Consult our Technical Department.

Adicem GR-220 “All in One”:

The specially manufactured chemical components contained in **ADICEM GR-220** substantially improve the quality of the concrete while eliminating the additive or lines used in a particular concrete to achieve maximum workability and / or plasticity, as well as waterproofing, ice and water reductants. hydration heat, among others. Granting greater economic benefits to the concrete producer and improving in its totality the manageability of the latter in its plastic state, making the dispersion and hydration of the cement to be total and homogeneous.

Instruction in low temperatures:

- In extreme low temperatures, **ADICEM GR-220** works with any antifreeze product. Any amount of liquid antifreeze used must be considered to reduce same amount from concrete water design.
- After lab certification, withstands up to -50°C of freezing (freeze cycles)

Compatibility:

- Cements of Types I, II, III, IV, V. and European Cement II (A-V), European Cement II (B-M)
- Cements and concrete containing slag, fly ash and pozzolans as well as with Portland type Cements that meet ASTM specifications; AASHTO or CRD, European and Russian Federation specifications.

Handling:

- Store in a cool, well-ventilated place within 24°C to 28°C
- Do not expose directly to solar heat or at temperatures that exceed 45 ° C (humid climate) and 55 ° C (dry weather)
- Keep in a hermetically sealed container.
- Dilute **ADICEM GR-220** (full dose) directly in the mixing water after having made the corresponding adjustment to the reduction in the Water-Cement ratio, to be determined according to the design of strength and the desired consistency.

Undertaking:

ADICEM GR-220 is guaranteed to comply with the performance parameters established in its Technical Data Sheet, which can also be observed in the different tests or demonstrations through the different tests, whether laboratory or industrial, with which reductions are achieved. of cement checked from 10% to 15% and much more in terms of reducing production costs that include, reduction or in its effect, the elimination of line additives in the concrete, control of setting and reduction of water refers, as long as they are used and dispensed in accordance with the methods and practices recommended by THE MANUFACTURER.

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