

DEVELOPMENT RESINS ADMIXTURES CONCRETE

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FLUIBETON 950 HC

SUPERPLASTICIZER FOR CONCRETE
CHLORIDE - FREE

DESCRIPTION

FLUIBETON 950 HC is a superplasticizer, ready to use, based on synthetic polymers, with high molecular weight and elevated fluidifying power. FLUIBETON 950 HC due to its elevated dispersing power and efficient synergism of its components, helps cement hydration with consequent increase of resistance either at the beginning or end of concrete.

FLUIBETON 950 HC is chloride - free.

FIELD APPLICATION

FLUIBETON 950 HC due to its characteristics is particularly indicated to obtain high quality concretes even if layed in fluid consistency or superfluid (self-levelling).

FLUIBETON 950 HC does not change the setting time of cement and is indicated for all concretes prepared on site or transported by trucks, what ever is their field of application (pilasters, slabs, industrial floorings, airport runways, structures etc.). It is widely applied in the reinforced concrete and precompressed reinforced concrete where a pre-curing cycle of 3/4 hours for maturation time is needed

ADVANTAGES

A concrete admixed with FLUIBETON 950 HC changes its consistency passing from "humid" (2-4 cm slump) to "superfluid" or "self levelling" only by adding the superplasticizer in indicated dosages. In this way high workability concrete is obtained but equal resistance due to unvariation of W/C (Water/Cement) ratio.

- FLUIBETON 950 HC could also be used maintaining constant the consistency of the concrete, in this case a considerable increase of mechanical strength, waterproofing and durability is verified.
- the self levelling concrete obtained by the addition of FLUIBETON 950 HC has no segregation and results more cohesive and homogeneous.

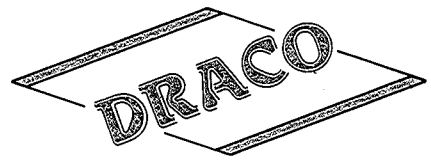
Bleeding values could result even lower than 0,05 cm³/cm² in conformity with UNI 7122/72 standards.

- the workability increase, reduces the costs of laying, it facilitates the pouring in thin sections even if strongly reinforced, it gives better pumpability with low pressure.
- with the use of FLUIBETON 950 HC concretes of equal workability are obtainable, but with a reduction of 20% of W/C ratio. The concretes will result homogeneous, with easier laying and less vibration time is needed.
- The mechanical strength will result proportionally to water reduction effected by increase of the same, in some cases until 100 % in respect to same concrete of equal workability but not additivated.
- with the minor ratio W/C the capillarity and porosity of the cement paste is reduced. Using FLUIBETON 950 HC it is possible to obtain concretes with waterproofing coefficient as per DARCY's formula lower than $1,10^{-10} \div 1,10^{-12}$ cm/s, hence absolutely waterproofing.
- the action of FLUIBETON 950 HC, due to its dispersing power, improves the degree of cement hydration and increases the percentage of use. This advantage joined to a higher compactedness is reflected on the increase of durability causing more resistance to the aggressive agents on the concrete.
- The concrete superfluidified with FLUIBETON 950 HC is more homogeneous, this goes to advantage of reduced variability of tests result and consequent higher quality constance.
- Furthermore, using FLUIBETON 950 HC other advantages are obtainable, for example: a better "Fair-faced concrete", better adherence to concrete - Iron, higher resistance to abrasion and lower shrinkage of cementicious conglomerate.

COMPATIBILITY

FLUIBETON 950 HC is compatible with all types and classes of cement and also other admixtures, as an example air-entraining agents type AERBETON of DRACO ITALIANA S.p.A. Wherever particular resistant concretes are needed for freeze-thaw cycles, it is advisable to mix using the AERBETON product.

FLUIBETON 950 HC



WORKABILITY IN TIME

The use of FLUIBETON 950 HC in concrete mixings allows to maintain the obtained workability after adding the admixture for a period of time varying from 1 to 2 hours (at 20 °C) according to the type and batching of the used cement. The loss of workability happens gradually. Site technical tests shall consent to individuate the necessary specifications for the use.

MECHANICAL STRENGTHS

With the use of FLUIBETON 950 HC the mechanical resistances obtained results increased in respect to a concrete of equal slump but not additivated, in brief and medium curings, evidencing said increase on all the arc of said curing further to a clear improvement in time..

ADDITION RATE AND USE

FLUIBETON 950 HC: 1 ± 0.2 kg for 100 kg di cemento (this is 0,8 to 1.2 for 100 kg of cement). It is possible to use the product even in Higher dosages for particular site necessities.

FLUIBETON 950 HC could be added in the truck mixer during mixing phase, even better at the end of mixing, in this last case re-mixing occurs for necessary time of homogenous dispersion in the mix mass, (about 5' to maximum velocity).

In order to obtain a correct dosage special volumetric dosers are available upon request.

PACKAGING AND STORAGE

drums of 230 kgs

Tanks of 1000 kgs

Bulk in tanks.

FLUIBETON 950 HC when exposed to temperatures lower than 0 °C, should be mixed and heated before the use.

CONCRETE CURING

In order to obtain better results it is advisable to protect the concrete from fast evaporation after pouring, specially in dry and ventilated climates, with the most suitable and common known devices.

The use of *DRACO ITALIANA SpA* curing compound product "PROBETON CURING" type T or B is recommended in a way to obtain better results.

SPECIFICATIONS

The characteristic strength concrete (Rck) used for the structures described in this specification shall be mixed with the admixture FLUIBETON 950 HC of *DRACO ITALIANA SpA*, a superplasticizer delaying the times of setting, thus ensuring the best technical, economic and operative results.

FLUIBETON 950 HC complies with UNI 8145 and ASTM C 494 Types F standards.

The admixture shall be used according to the producer's *DRACO ITALIANA S.p.A.*, recommendations, who upon request, will give technical assistance with skilled personnel.

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This edition annuls and replaces the previous