

CAPLAST SUPER SPECIAL (P)

A HIGH RANGE WATER REDUCING & SUPER PLASTICIZING CONCRTE ADMIXTURE

DESCRIPTION

CAPLAST SUPER-SPECIAL (P) is a high range, high performance super plasticizer, which reduces water requirement considerably with significant enhancement of compressive strength.

CAPLAST SUPER-SPECIAL (P) can be used in powder form, or as liquid by preparing a 45 % solution in water

FEATURES

CAPLAST SUPER-SPECIAL (P) increases the workability of concrete mixes by powerful de-flocculating and dispersing action on cement particles. The effect enables to produce high workability concrete and significant reduction in the free water content.

STANDARDS

CAPLAST SUPER-SPECIAL (P) complies with ASTM C 494 type F and BS 5075 part III.

USES

CAPLAST SUPER-SPECIAL (P) can be used for

- Producing high workability, self compacting, and high strength concrete especially for precast industries.
- Producing high workability concrete where heavily congested reinforcement or poor access exists.
- For piling applications.
- For low water cement ratio concrete.

ADVANTAGES

- Up to 25% water reduction.
- Flow able concrete with low w/c ratio.
- High range admixture which can be used as a conventional plasticizer to a super plasticizer.
- Initial and final set do not vary much with respect to concrete without admixture (reference mix).
- Imparts rheoplastic qualities to concrete with normal setting time.
- High early strength can significantly increase mold utilization in pre-cast work.

- Due to reduction in w/c ratio, hardened concrete shows high strength, impermeability, durability and dimensional stability (high elastic modulus, low shrinkage and creep).
- Substantial increase in workability can be obtained by addition of CAPLAST SUPER-SPECIAL (P) to a mix having a slump in the range 50 mm to 100 mm, the magnitude of this increase is often such that the concrete becomes self compacting and no vibration is required to achieve a dense and void free concrete.

TYPICAL PROPERTIES

Appearance:

Tan, free flowing powder

Bulk density

About 500 kg/m³

Solubility:

Soluble in water.

Chloride content:

Nil to BS 5075.

Air entrainment:

Conforming with ASTM C494 section 12.2.1

Retardation:

Negligible with normal dosage.

Toxicity:

Non toxic

Compatibility with cement:

Compatible with all types of Portland, Pozzolanic and blast furnace cements. Can also be used with mix designs containing fly ash and micro silica.

Compatibility with other admixtures:

Compatible with other Ahlia admixtures, provided they are added separately to the mix.

Shelf life:

At least 24 months if stored in unopened original packaging.

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DIRECTIONS FOR USE

CAPLAST SUPER-SPECIAL (P) can be used in powder form, or as liquid by preparing a 45 % solution in water

Dosage:

Field trials should be conducted to determine the optimum dosage of CAPLAST SUPER-SPECIAL (P)

Or liquid with relevant concrete mix and job conditions.

Rate of addition can be varied to get desired results.

As a general guide-

For Powder

A dosage range of 0.18 to 0.67 kg per 50 kg of cement is recommended as a starting point.

For Liquid

A dosage range of 0.4 to 1.5 liter is recommended as starting point

For early high strength concrete, a higher dosage is required.

Dispensing

Powder to be added in moist aggregates before addition of cement

Limitations

Caplast super special (P) must not be added directly to dry cement while mixing concrete.

Overdosing:

An overdose of double the recommended dose will result in increased workability and set retardation.

Provided if properly cured, the ultimate strength of concrete will not be adversely affected.

HEALTH AND SAFETY

CAPLAST SUPER-SPECIAL (P) is a non –Hazardous, non flammable, non explosive substance and is classed as a non –dangerous good. However, it is recommended protective personal equipment such as, overalls, gloves safety goggles and a dust mask to be used during mixing. Avoid skin contact.

Always wash hands before eating, drinking, Smoking.

PACKAGING

CAPLAST SUPER-SPECIAL (P) is supplied in 10 kg bags. Other packing with prior arrangement .

STORAGE

Preferably store in sealed conventional containers, protected from extreme weather conditions.

TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

Note : The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.

As all Ahlia Technical Data Sheets are updated on a regular basis, it is the user responsibility to collect most recent issue.