

# CAPLAST SUPER SPECIAL

## A HIGH RANGE WATER REDUCING & SUPER PLASTICIZING CONCRETE ADMIXTURE

### DESCRIPTION

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

### FEATURES

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

### USES

CAPLAST SUPER-SPECIAL can be used for

- Producing high workability, self compacting, 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.
- Flowable 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 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:

Deep brown liquid

#### Specific gravity:

1.2 at 25 °C

#### Solubility:

Soluble in water.

#### Chloride content:

Nil to BS 5075.

#### Air entrainment:

Conforming with ASTM C-494 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 microsilica.

#### Compatibility with other admixtures:

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

#### Shelf life:

At least 18 months if stored in tightly closed containers at normal ambient temperature.

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## DIRECTIONS FOR USE

CAPLAST SUPER-SPECIAL is supplied ready to use. It should be added to concrete mixes during mixing process preferably at same time along with mix water.

### Dosage:

Field trials should be conducted to determine the optimum dosage of CAPLAST SUPER-SPECIAL with actual concrete mix and job conditions. Rate of addition can be varied to get desired results. As a general guide, a dosage range of 0.4 to 1.5 liters per 50 kg of cement is recommended as a starting point.

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

### Dispensing:

Best by dispenser into the gauging water or directly with water into the mixer.

### 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.

## SAFETY PRECAUTIONS

CAPLAST SUPER-SPECIAL is nontoxic and non-flammable. Splashes to eyes and skin should be washed off at once with water. It is advisable to use goggles and gloves while handling CAPLAST SUPER-SPECIAL.

## PACKAGING

CAPLAST SUPER-SPECIAL is supplied in bulk (by arrangement), 205 liter barrels, or 20 liter cans.

## STORAGE

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

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### 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.