

# CAPLAST-R SPECIAL

## A WATER REDUCING & RETARDING CONCRETE ADMIXTURE

### DESCRIPTION

**CAPLAST-R SPECIAL** is a water reducing, plasticizing and retarding concrete admixture, beneficial in maintaining workability especially in high ambient temperatures.

### FEATURES

**CAPLAST-R SPECIAL** increases the dispersion of cement particles by combining the effects of a powerful plasticizing, de-flocculating and retarder blend. It enhances the dispersion of cement particles and wets them more thoroughly.

### STANDARDS

**CAPLAST-R SPECIAL** complies with the specifications of ASTM C494 Type B and D as well as B.S. 5075 Part 1

### USES

**CAPLAST-R SPECIAL** can be used:

- To increase the setting time of concrete and maintain its workability, especially in hot weather concreting, where delay to initial and final settings are important in addition to the maintenance of maximum slump.
- To reduce permeability, and thereby minimizing the effects of ground water salts on concrete and steel.
- To increase concrete strength at unchanged or improved workability.
- To increase concrete workability at unchanged or improved strength.
- To reduce cement content without loss of workability, and ultimate strength.

### ADVANTAGES

By using **CAPLAST-R SPECIAL**, setting time is retarded without reduction in strength. On the contrary, the retardation effect of **CAPLAST-R SPECIAL** is coupled with an ability to enhance concrete strength.

By using **CAPLAST-R SPECIAL** water can be reduced to the extent of 10 % to 15% according to sand grading, while retaining the same workability.

Strength can be improved by more than 20% through the reduction in the w/c ratio.

- By using **CAPLAST-R SPECIAL**, concrete workability can be improved. Slump will be increased by the addition of **CAPLAST-R SPECIAL** without reduction in water content. Concrete can be placed and compacted more easily without reduction in strength.
- By using **CAPLAST-R SPECIAL**, cement consumption can be reduced. Up to 10% of cement can be saved by taking advantage of water reduction, and still maintaining the desired concrete quality with unchanged workability.
- **CAPLAST-R SPECIAL** increases the placing time, hence larger batches can be achieved and placed. Even at higher ambient temperatures, concrete can be conveyed over greater distances without risk of setting.
- Improved surface finish, trowelability and pumpability of concrete.

### TYPICAL PROPERTIES

#### Appearance:

Deep brown clear liquid.

#### Specific gravity:

Approx 1.17 at 25°C

#### Chloride content:

Nil to BS 5075

#### Air entrainment:

Complies with requirements of ASTM C 494 clause 12.2.1

#### Toxicity:

Non-toxic.

#### Compatibility with cement:

Compatible with all types of cement, except high alumina cement.

#### 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 sealed containers at normal ambient temperature.

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### DIRECTIONS FOR USE

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

#### Dosage:

Trials should be carried out to determine the optimum dosage of **CAPLAST-R SPECIAL**, taking into account the proposed mix design, performance requirements and site conditions.

As a general guide, a dosage range of 0.150 liter to 0.50 liter per 50 kg of cement is recommended as a starting point. Dosage outside recommended limit can be used by establishing the proper dosages on actual mix for required performance.

#### Dispensing:

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

#### Overdosing:

An overdose of double the recommended dosage results in the following.

- Retardation of initial and final setting time.
- Increase in workability.
- Slight increase in air entrainment.

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

### SAFETY PRECAUTIONS

**CAPLAST-R SPECIAL** is nontoxic and non-flammable. Splashes to eyes should be washed immediately with abundant water. It is advisable to use goggles and gloves while handling **CAPLAST-R SPECIAL**.

### PACKAGING

**CAPLAST-R 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.

#### 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.