

### DESCRIPTION

**CAPLAST SF-500** is a ready to use, high range, and workability retaining super plasticizer in tropical condition, based on blends of naphthalene sulfonate. It can provide very high level of water reduction up to 10 to 20 % without loss of workability. This results in high quality concrete of reduced permeability and improved compressive strength.

### FEATURES

**CAPLAST SF-500** acts as a dispersing agent, by breaking down the agglomerated cement particles and enable the water in the mix to perform more effectively. **CAPLAST SF-500** delays the initial hydration of cement and the high reduction of water promotes high early and ultimate strength.

### USES

- Producing self-leveling, high early strength concrete with low water content.
- For hot weather concreting.
- For general structural concrete where a good surface finish is required.
- Delayed and controlled set will assure sufficient placing time.
- Can be used where high plasticity and longer workability concrete its specified
- Better workability produced using Caplast SF-500 results in better compaction and surface finish.

### ADVANTAGES

- Effective over a wide range of cement contents and w/c ratios.
- Improves workability and cohesion.
- Facilitates slip forming under difficult conditions.
- Self-compacting and self-leveling properties speedup placing of concrete and construction works.
- Reduces bleeding and segregation, where poor sand grading is unavoidable.
- Enables production of economical, dense and impermeable concrete.
- Minimum thermal peak

### TYPICAL PROPERTIES

#### STANDARDS

**CAPLAST SF-500** complies with the specifications of ASTM C 494 type G.

#### Appearance:

Dark brown liquid

**Specific gravity:**  $1.17 \pm 0.03$  at 25 °C

**Solid %** :  $35 \pm 5$  %

#### Solubility:

Soluble in water.

#### Chloride content:

Nil to BS 5075.

#### Air entrainment:

Conforming with ASTM C494 section 12.2.1

#### 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, microsilica and other cement replacement materials.

#### Compatibility with other admixtures:

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

#### Shelf life:

At least 12 months if stored in tightly closed containers at normal ambient temperature.

### DIRECTIONS FOR USE

**CAPLAST SF-500** is supplied ready to use. It should be added to concrete mixes during mixing process preferably at same time along with mix water. **CAPLAST SF-500** should not be added directly to the cement as this will affect its performance. It can also be added on the site into transit mixer, in case water has been also added on site.

#### Dosage:

Field trials should be conducted to determine the optimum addition rates of **CAPLAST SF-500** USING the relevant mix design. The following guide lines will provide a starting point for the trials in the following application.

# CAPLAST SF-500

HIGH RANGE WATER REDUCING/ RETARDING/ SUPER PLASTICIZER ADMIXTURE

- 0.4 to 0.9 lts per 50 kg of cement to regulate plasticizing effect.
- 0.8 to 1.2 lts per 50 kg cement to produce flowing, self-compacting, workability retaining concrete with high water reduction.

The dosage rates given are a guide line. It is recommended test be made using the cement, pozollan, aggregates and other physical conditions proposed for the specific work , because the specific effects produced by the chemical admixture may vary with the properties and proportions of the other ingredient of the concrete

### Dispensing:

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

### Effect of Overdosing:

An overdose of double the recommended dose will result in the following.

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

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

### SAFETY PRECAUTIONS

**CAPLAST SF-500** 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 SF-500**.

### PACKAGING

**CAPLAST SF-500** 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.