

# CAPLAST POWER FLOW R

A HIGH-PERFORMANCE CONCRETE SUPER PLASTICIZER  
BASED ON ADVANCED POLYCARBOXYLATE

## DESCRIPTION

CAPLAST POWER FLOW -R is a ready to use, third generation high performance super plasticizer, based on advanced polycarboxylate.

## FEATURES

CAPLAST POWER FLOW -R disperses cement particles by steric hindrance as well as by electrostatic repulsion forces. CAPLAST POWER FLOW -R shows excellent performance in fluidity retention.

## USES

In production of,

- High performance concrete.
- High fluidity concrete.
- High strength concrete for dams, bridges and high-rise buildings.
- Self compacting concrete.
- Highly durable concrete.
- Fly ash concrete/ slag/micro silica concrete.

## ADVANTAGES

- Effective over a wide range of cement contents and w/c ratios.
- Facilitates slip forming under difficult conditions.
- Self-compacting and self-leveling properties speed up placing of concrete and construction works.
- Enables production of high strength, dense and impermeable concrete.
- Better resistance to aggressive atmospheric condition and carbonation.
- Reduced shrinkage and creep.
- Minimum thermal peak.

## TYPICAL PROPERTIES

### Appearance:

Opaque liquid

### Specific gravity:

1.10 at 25 °C

### 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, micro silica and other cement replacement materials.

### Compatibility with other admixtures:

CAPLAST POWER FLOW -R must not be used with any other admixture however if used with other admixture it is advised to pretest the mix design to determine the proper function.

### Shelf life:

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

## DIRECTIONS FOR USE

CAPLAST POWER FLOW -R is supplied ready to use. It should be added to concrete at the time of batching. The optimum effect is achieved when CAPLAST POWER FLOW -R is being mixed during mixing process preferably at same time along with water. CAPLAST POWER FLOW -R 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 is also been added on site.

### Dosage:

Field trials should be conducted to determine the optimum addition rates of CAPLAST POWER FLOW -R using the relevant mix design. The following guidelines will provide a starting point for the trials in the following application.

- 0.4- 0.6 liters per 50 kg of cement and cement replacement material to achieve plasticizing effect.
- 0.7 to 1.0 liters per 50 kg cement to produce flowing, self-compacting concrete with low Water cement ratio.

The dosage rates given are a guideline. Applications requiring a dosage rate outside these guidelines are not uncommon

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## 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 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 POWER FLOW -R 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 POWER FLOW -R.

## PACKAGING

CAPLAST POWER FLOW -R 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.

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