

# MARKPLAST FLOW-30

PCE BASED HIGH RETARDING AND WATER REDUCING SUPERPLASTICISER FOR CONCRETE



## DESCRIPTION

MARKPLAST FLOW-30 is a polycarboxylic ether based Superplasticiser for Concrete. The cement dispersion is greatly improved. MARKPLAST FLOW-30 makes possible to manufacture flow able concrete requiring no compaction at very low water/cement ratio. It stabilizes cement particle's capacity to separate and disperse. It is used where high slump retention property is required.

## FEATURES / ADVANTAGES

- Lower permeability
- Increased durability
- Better resistance to aggressive atmospheric conditions.
- Reduced shrinkage and creep
- It does not contain Chlorides hence does not corrode the reinforcements.
- Adapted for the long distance transporting of concrete
- Elimination the need for Vibration
- Very high early strength

## TYPICAL APPLICATIONS

- Self-compacting concrete
- Ready mix concrete
- Pumped concrete
- Long distance transporting
- High durability concrete
- Very high strength concrete
- For precast concrete industry

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## TYPICAL CHARACTERISTICS

- Color : Light yellow to brown medium viscous liquid
- Relative density at 25<sup>0</sup>C : 1.110 ± 0.02gms/cc
- PH Value : Min. 6

## SPECIFICATION COMPLIES

- IS: 9103
- ASTM:C-494,Type-F

## CHEMICAL COMPOSITION

- Methoxy-polyethylene glycol copolymer (side chain) grafted with methacrylic acid copolymer (main chain).
- C<sub>6</sub>H<sub>10</sub>O<sub>5</sub> (Cellulose Ether)
- Al<sub>2</sub>O<sub>3</sub> (Aluminium Oxide)
- LiNO<sub>3</sub> (Lithium Nitrate)

## DIRECTIONS FOR USE

### DOSAGE

Normal dosage range of MARKPLAST FLOW-30 is 0.3 to 1.4 % by weight. The optimum dosage to meet the specific requirement should always be determined by conducting trial mixes using the materials and conditions that will be experienced in use. Because of variations in job conditions, concrete materials and climatic conditions dosage rates may vary in such cases, contact our CCR (Construction chemicals representative)

## EFFECT OF OVERDOSAGE

An overdosing of MARKPLAST FLOW-30 can result in the following.

- Delay of initial & final set of concrete.
- Increase in plastic shrinkage
- Severe bleed & segregation of mix

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- Due to slight overdosing of MARKPLAST FLOW-30 the ultimate compressive strength of concrete cannot be get affected, providing it is properly compacted & cured. Due allowance should be made for the effect of fluid concrete pressure on formwork, & stripping time should be monitored. In such cases contact our CCR (Construction chemicals representative).

## DIRECTION FOR USE

- Stir well the material before use
- MARKPLAST FLOW-30 is ready to use liquid which is dispensed in to the concrete together with the mixing water
- The dispersion effect is higher if it is added to the damp concrete after 60 to 70% of mixing water has been added. Thorough mixing is essential
- Not recommended to add in dry aggregates and cement
- Mix the concrete thoroughly after the addition of MARKPLAST FLOW-30

## WORKABILITY

- MARKPLAST FLOW-30 will retain the workability of concrete approx. up to 3 hrs. @25°C. It retains the workability of concrete in proportion to the amount of product dosage used for trials. The workability loss is dependent on factors such as temperature, type of cement, type of aggregate, the initial workability of mix and methods of transportation of concrete etc.
- It is recommended that concrete should be properly cured by adopting the suitable method of curing.

## COMPATIBILITY

- Compatible with all types of Portland cements, slag & pozzolans such as fly ash, Microsilica/ metakaolin etc. The product must not be used in conjunction with any other admixtures unless prior approval is received from CCPL Technical service Department.

## PACKING

5Kg, 50Kg , 225Kg and 250Kg Barrel

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## HEALTH AND SAFETY

- If it comes in contact with skin, mouth, eyes etc. wash it with plenty of water & if needed take medical advice. If accidentally gets ingested seek immediate medical attention. It is non-toxic
- Do not reuse the containers for storage of consumable items for further information refers to the material safety data sheet. MSDS available on demand.

## DISCLAIMER

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential nonperformance.