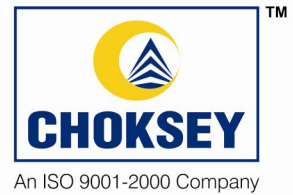


# ■ MASTERPLAST-FLOW-30

Retarding Superplasticiser based on PCE for concrete



## DESCRIPTION

Masterplast-Flow-30 is polycarboxylic ether based Retarding Superplasticiser for High performance concrete. Masterplast-Flow-30 greatly improves cement dispersion that makes possible to manufacture flowable concrete requiring no compaction at very low water/cement ratio. The mechanism is based on steric hindrance effect which stabilises cement particle's capacity to separate and disperse. Mainly used where high slump retention property is required.

## FEATURES / ADVNTAGES

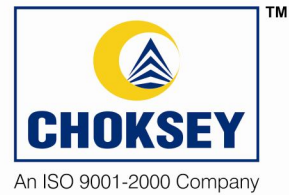
- Particularly adapted for the long distance transporting of concrete.
- High level of fluidity that can be poured and placed by gravity avoiding the need of vibration.
- Increased early and ultimate compressive strengths.
- High workability for longer periods.
- Improved adhesion to reinforcing and stressing steel.
- 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.

## USAGE

- Self-compacting concrete.
- Ready mix concrete.
- Pumped concrete.
- High performance concrete for good durability
- For low water/ binder ratio mixes.

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- Very high strength concrete.
- For precast concrete industry.

## TYPICAL PROPERTIES

- Color & appearance : Light yellow to brown medium viscous liquid
- pH value : Min 6
- Relative density @ 25°C : 1.110 ± 0.02 gm/cc
- Chloride content : 0.2% Max. According to IS 6925

## SPECIFICATION COMPLIES

Specification complies with:

- ASTM C494 Type G
- IS 9103.

## DOSAGE

Normal dosage range of Masterplast-Flow-30 is 0.4 to 1.6 % by weight over cementitious materials including PFA, GGBFS and Microsilica/metakaolin etc. In self compacting grade of concrete if necessary use our product Masterplast VMA also at the dosage range of 0.150 to 0.600% over cementitious material to reduce the bleeding & segregation. Masterplast VMA will maintain the correct balance between fluidity & resistance to segregation. 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 CCPL (Construction chemicals) representative

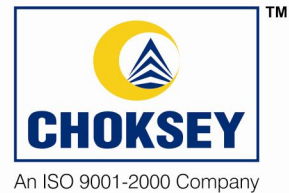
## EFFECT OF OVERDOSAGE

An overdosing of Masterplast-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 Masterplast-Flow-30 the ultimate compressive strength of concrete can not 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 CCPL (Construction chemicals) representative

## DIRECTION FOR USE

- Stir well the material before use.
- Masterplast-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 50 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 Masterplast-Flow-30.

## WORKABILITY

- Masterplast-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.
- The use of our curing compounds products Master cure RB2M & Master cure WB2M will prevent the early water loss from the surface of the flat works such as pavements in dry, windy and hot climates.

## 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.

## CORROSIVITY

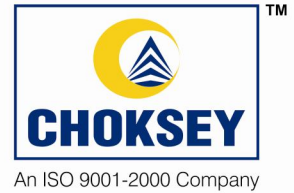
Masterplast-Flow-30 has very low chloride ion content, so it will neither initiate nor promote the corrosion of reinforcing steel embedded in concrete.

## PACKAGEING

Masterplast-Flow-30 is supplied in 5, 20,200 liters & 250 kg drums or in bulk as per requirements.

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## STORAGE & SHELF LIFE

- Store the material in a cool & dry place. (Preferably at @30°C temp.) Store under cover, out of direct sunlight and protect it from extremes of temperatures.
- Shelf life is one year from the date of manufacturing when stored in undamaged, unopened, original sealed packaging

## HEALTH & 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 and 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 non performance.