

CHRYSO



CHRYSO FLUID OPTIMA K-15

POLYCARBOXYLATE BASED NEW GENERATION SUPERPLASTICIZER FOR CONCRETE

CHRYSO FLUID OPTIMA K-15 is a 4th Generation High Performance Superplasticizer based on a modified POLYCARBOXYLIC ETHER.

CHRYSO FLUID OPTIMA K-15 conforms to IS : 9103-1999 and ASTM C-494-1981(Type-G).

CHRYSO FLUID OPTIMA K-15 is characterized by its chemical structure. A long-ether chain for steric hindrance is a new concept and it is completely different from electrostatic repulsion. Therefore it shows good performance such as a high dispersibility and easiness contact with water.

ADVANTAGES :

- **CHRYSO FLUID OPTIMA K-15** can be utilized for high strength and high performance concrete use. At high dosage it does not have high retardation effect.
- **CHRYSO FLUID OPTIMA K-15** enables retention of slump for very longer periods, thereby green concrete can be hauled for longer distances and still be placed conveniently, as workability is retained.
- Substantial improvements in workability and flow properties without any increase in water and without addition of any viscosity modifying agent (VMA), produces self-compacting, self-leveling and rheodynamic concrete, which can be poured into place around congested reinforcement and requires no vibration to achieve optimum compaction.
- Higher production and/or reduction in number of moulds is possible for precast industries.
- The bond strength of concrete to reinforcement steel is considerably increased.
- The internal friction and thixotropy of the mix is reduced to a minimum without the risk of segregation, thus making the concrete extremely cohesive and gas-tight.
- Very high water reduction minimizes shrinkage or cracking, thereby producing close textured, impervious concrete with improved durability and surface finish. This is of particular importance in liquid retaining and water bearing structures.
- For a given concrete mix, keeping the cement consumption and workability constant, substantial reduction in the amount of mixing water (upto 40%) can be achieved, to produce concrete of very high strength. Alternatively, for the same concrete mix, by keeping the workability and strength constant, a definite cement economy, i.e. ranging from 15% to 25% of cement can be saved, depending on the rate of addition.
- Produces fair-faced concrete.

PROPERTIES :

Main Ingredient	:	Polycarboxylic ether
Appearance	:	Transparent liquid
Specific Gravity	:	1.09 ± 0.02
Setting & Hardening	:	Even at high dosage it does not have retarding effect on the setting time.
Chloride Content	:	Nil, as per BS - 5075 (Part-I)
Compatibility	:	Can be used with all types of OPC, Portland Slag Cements, Pozzolana Cement including Sulphate Resisting Cement.



- Consistency : CHRYSO FLUID OPTIMA K-15 is formulated from carefully selected raw material and manufactured under controlled conditions to give a consistent product.
- Handling : CHRYSO FLUID OPTIMA K-15 is formulated from chemicals which present no fire or health hazards.
- Toxicity : Non-toxic
- Shelf Life : If stored in unopened containers at normal ambient temperatures, a shelf-life of approximately 12 months could be expected.

METHOD OF USE :

CHRYSO FLUID OPTIMA K-15 is supplied ready for use. For maximum dispersion throughout the mix, measured quantity of CHRYSO FLUID OPTIMA K-15 should be directly added into the mixer at the same time as the mixing water. On no account should it be added to the dry cement. To achieve the best results, the mixer along with material should be rotated for at least 2-3 minutes.

RATE OF ADDITION :

The optimum dosage should be determined by site trials with the particular concrete mix. As a guide the rate of addition is generally in the range of 0.2-1.5% on cement wt(w/w)

PACKING :

25 / 100 / 200 Kg Barrel



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CHEMICAL SOLUTIONS FOR THE CONSTRUCTION MATERIALS



The information contained in this technical data sheet is given to the best of our knowledge and are the results from extensive testing. However, it cannot, under any circumstances be considered as a warranty involving our liability in case of misuse or any different use of our products from the "Application" paragraph of this technical data sheet. Tests should be carried out before the use of the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users

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