

# CHRYSO® Optima K9313



## High Range New Generation Super Plasticizing Admixture

### Description

CHRYSO® Optima K9313 is a new generation superplasticizer based on POLYCARBOXYLIC ETHER. It has a high dispersion capability and therefore imparts very high plasticizing effect, acts as a High range water reducer for concrete. CHRYSO® Optima K9313 is especially developed for Ready Mix & Job site Application.

### Indicative characteristics

- Form : Light Amber Liquid
- Specific Gravity : 1.11 ± 0.02
- Air entrainment : ≤ 1.5 % over control mix.
- pH : ≥ 6
- Chloride Content : Nil, as per BS - 5075 (Part-I)
- Compatibility : OPC, Fly Ash, PPC and SRC.

### Advantages :

Thanks to specifically designed molecular structure, CHRYSO® Optima K9313 enables the concrete manufacturer to produce high performance, flowable concrete of M-60 & above grades with high fines content. It also minimizes the risk of excess retardation though retains the Flow / Workability for longer time period, often to the tunes of 3-4 hours. Thereby green concrete can be hauled for longer distances and still be placed conveniently around congested reinforcement. The bond strength of concrete to reinforcement steel is considerably increased. High water reduction minimizes shrinkage or cracking yielding better surface finish.

For a given concrete mix, keeping the cement consumption and workability constant, substantial reduction in the amount of mixing water (up to 32%) can be achieved, to produce concrete of high compressive strength. Alternatively, for the same concrete mix, keeping everything else constant, a *definite economy in cement content*, ranging from 20% to 30%, can be achieved.

### Domains of application

- All cement types
- Pumped concrete with moderate SCM usage
- Slump retention at high ambient temperature
- Self-Consolidating Concrete
- Ready mix concrete & Jobsites
- Concrete for highly reinforced structures
- High to very high performance concrete

### Precautions

Not to be stored at high temperatures for long periods. Should be protected from frost. It is Non-toxic and formulated from chemicals which present no fire or health hazards.

### Method of use

Dosage: Optimum dosage can only be established after trials, taking into account the rheological characteristics and the required mechanical performances. Rate of addition is generally in the range of 0.8-1.8% by wt of cementitious material. For maximum dispersion throughout the mix, CHRYSO® Optima K9313 should be added to the mixing water only. Should the product be added to fresh concrete, into the mixing truck, it is necessary to mix at high speed, and then at low speed (with a minimum 3 minutes at each speed)

### Guideline Followed :

IS: 9103-2007 and ASTM C-494-2010(Type-G).

**Shelf Life:** If stored in unopened containers at normal ambient temperatures, a shelf-life of approximately 6 months.

### Packaging

- 225 Kgs Barrel & bulk in 10 KL tanker

### Safety

Before use, refer to the Material Safety Data Sheet. The MSDS is available on [www.chryso.com](http://www.chryso.com).