

Technical data sheet

CHRYSO® Optima ME 40

New Generation Superplasticizer- High Range Water Reducer

Description

CHRYSO® Optima ME 40 is a new generation superplasticizer based on modified polycarboxylate and synthetic polymers. Thanks to its specifically designed molecular structure, **CHRYSO® Optima ME 40** enables the concrete manufacturer to produce cohesive, low viscous concrete with long workability retention. **CHRYSO® Optima ME 40** has been developed to maintain fresh concrete workability without compromising the setting time. **CHRYSO® Optima ME 40** enables the production of self-leveling concrete.

Standards

CHRYSO® Optima ME 40 conforms to ASTM C 494 Type A, F, G and BS EN934-2.

Advantages

- **CHRYSO® Optima ME 40** allows concrete with an important workability to be obtained, while reducing the water/cement ratio.
- Enhances the workability retention of concrete in hot climates.
- The dispersion properties of **CHRYSO® Optima ME 40** allow the user to optimise the cement content when a specified mechanical strength is required.

Application guidelines

CHRYSO® Optima ME 40 is recommended for all concrete mixes where water content, improved cementitious material performance, high workability retention and very high strengths characteristics are desirable.

CHRYSO® Optima ME 40 does not contain any purposely added calcium chloride or other chloride based components. It will not promote or contribute to corrosion of reinforcing steel in concrete. **CHRYSO® Optima ME 40** is a chemically stable liquid.

Physical and chemical properties

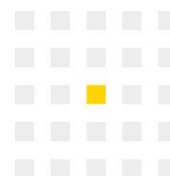
- Nature: Liquid
- Colour: Yellowish
- Density : 1.04 ± 0.020
- pH : 5.5 ± 2
- Cl⁻ ion content : nil to EN 934 and BS 5075
- Na₂O equiv. : $\leq 1.0 \%$

Use

- All types of cements.
- Heavy prefabrication.
- High performance concrete, ultra high performance concrete.
- Pre-stressed concrete.
- Ready-mix concrete.
- Concrete of humid, plastic or fluid consistency.
- Normal or high flowable concrete.
- High strength concrete with high workability retention.
- Compatible with Micro silica, GGBS and Fly Ash.
- Extended workability concrete.
- White or pale concrete.

Directions

- **Dosage:** Between 0.5 and 3.0 litres per 100 kg of total cementitious material. A 1.2% dosage of the product to the weight of cement is commonly used.
- **CHRYSO® Optima ME 40** can be added to the water before mixing the concrete. However, it can be added to the concrete after mixing.



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- Dosage rates of **CHRYSO®Optima ME 40** are dependent upon desired concrete performance characteristics and variables including cement quantity and chemistry, concrete temperature and curing conditions.
- As local job conditions vary, please contact your local **CHRYSO** sales representative for further assistance if using outside recommended dosage ranges.

Compatibility

CHRYSO®Optima ME 40 is compatible with all types of Portland cement, class C and F fly ash, slag, micro silica, calcium chloride, fibers and approved air entraining admixtures.

Precautions

- Store away from frost.
- Use **CHRYSO®Optima ME 40** at a temperature superior to 0°C.
- Should the product freeze, it will recover its properties after thawing and agitating thoroughly.
- This product must be stored in plastic containers, but not in PVC.
- Shelf life: 12 months.

Packaging

- Bulk
- IBC of 1000 litres
- Drums of 215 litres
- Pails of 20 litres

Health and safety

- **CHRYSO®Optima ME 40** is not considered dangerous to handle.
- For further information, please refer to the material safety data sheet.

Disclaimer: The information contained in this document is given to the best of CHRYSO's knowledge and is the result of extensive testing. However, this document will not under any circumstances be considered as a warranty involving CHRYSO's liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. CHRYSO specialists are at the disposal of the users in order to help them with any problems encountered.