

# CHRYSO® Optima CQ 45

New Generation, high range water reducing/  
superplasticizing admixture



## DESCRIPTION

**CHRYSO® Optima CQ 45** is a new generation superplasticizer based on modified polycarboxylate and synthetic polymers. Thanks to its specifically designed molecular structure, **CHRYSO® Optima CQ 45** enables the concrete manufacturer to produce cohesive, low viscous concrete with long workability retention.

**CHRYSO® Optima CQ 45** has been developed to maintain fresh concrete workability without compromising the setting time. **CHRYSO® Optima CQ 45** can be used in self-levelling concrete production.

## BENEFITS

- **CHRYSO® Optima CQ 45** allows concrete with the required workability to be obtained while reducing the water/cement ratio.
- Enhances the workability retention of concrete in hot climates.
- The excellent dispersion properties of **CHRYSO® Optima CQ 45** allow the user to optimise the cement content with reference to the specified concrete strength.
- With all these characteristics, **CHRYSO® Optima CQ 45** is a superplasticizer which is particularly adapted for usage in construction jobsites and in the ready-mix concrete industry.

## PACKAGING

- IBC 1000L
- Bulk delivery on request

## FIELDS OF APPLICATION

**CHRYSO® Optima CQ 45** is recommended for all concrete mixes where low water content, improved cementitious material performance, high workability retention and very high strengths characteristics are desirable.

- All cement types
- Precast elements
- High Performance Concrete - Very High Performance Concrete
- Prestressed concrete
- Ready-mix concrete
- Concrete with workability retention
- High early and ultimate strength
- Hot weather concreting
- Pumped concrete
- Self levelling concrete
- Concrete for highly reinforced structures
- Plastic or fluid concretes

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### INDICATIVE INFORMATION

|                  |               |
|------------------|---------------|
| Product Nature   | liquid        |
| Color            | Pale yellow   |
| Lifetime         | 12 months     |
| Specific gravity | 1,055 ± 0,020 |
| pH               | 5,00 ± 2,00   |

Cl<sup>-</sup> ion content: nil to EN 934 and BS 5075.

### METHOD OF USE

0.5 to 2 litres for 100 kg of cement.

- The optimum dosage of this product can only be established after trial tests, taking into account the rheological characteristics and the required mechanical performances of the concrete.
- It can be added: - either within mixing water, or at the end of the mixing cycle (extra mixing time) - or gradually: part in the water before mixing, part during the mixing cycle.
- 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 of 3 minutes, at each speed).
- Dosage rates of **CHRYSO® Optima CQ 45** are dependent upon desired concrete performance characteristics and variables including cement quantity and chemistry, concrete temperature and curing conditions.
- Because local job conditions vary, please contact your local CHRYSO sales representative for further assistance if using outside recommended dosage ranges.

### PRECAUTIONS

- Protect from frost.
- Use at a temperature above 0° C.
- Should the product freeze, it will recover its properties. After thawing, an efficient agitation is necessary until the product is entirely homogeneous again.

#### Compatibility:

- **CHRYSO® Optima CQ 45** is compatible with all types of Portland cement, class C and F fly ash, GGBS, microsilica, fibers and approved air entraining admixtures.
- **CHRYSO® Optima CQ 45** is compatible with other CHRYSO admixtures when used in the same concrete mix, but should be added to the mix separately and must not be mixed together prior to addition.

### NORMATIVE AND REGULATORY INFORMATION

- This product conforms to ASTM C 494 Type F and G, and BSEN 934 2

### SAFETY

**CHRYSO® Optima CQ 45** is not considered dangerous to handle. Prior to any use, please read carefully the Material Safety Data Sheets.