

# CHRYSO®Optima 175

## High range water reducing Super plasticizing admixture



**CHRYSO®Optima 175** is a new generation superplasticizer based on polycarboxylate and modified phosphonate. It allows concrete with an important workability to be obtained, while reducing the water/cement ratio.

It is developed to maintain fresh concrete workability without compromising the setting time.

**CHRYSO®Optima 175** is especially adapted for ready mix concrete and fluid concrete which require high short and long term strengths.

### Indicative characteristics

- Nature: liquid
- Colour: Yellow
- Specific gravity (20°C): 1,055 ± 0,010
- pH: 6,00 ± 1,00
- Solid content (halogen): 30,00% ± 1,50%
- Solid content (EN 480-8): 30,50% ± 1,50%
- Na<sub>2</sub>O equivalent: ≤ 1,00%
- Cl<sup>-</sup> ions content: ≤ 0,10%
- Shelf life: 12 months

### Norms and regulations

- This product conforms to CE marking. The appropriate declaration can be found on our internet site.
- This product conforms to NF 085 certification, which technical specifications are those applied in the non harmonised part of NF EN 934-2.

### Domains of application

- All cement types
- Pumped concrete
- Workability retention
- Ready-mix concrete

- Slabs on grade
- Industrial floors
- White or plain concretes
- Concrete for highly reinforced structures
- High Performance Concrete - Very High Performance Concrete

### Precautions

Protect from frost.

Avoid prolonged exposure to high temperatures. Should the product freeze, it will recover its properties. After thawing, an efficient agitation is necessary until the product is entirely homogeneous again.

### Method of use

Dosage: 0.3 to 3.0 kg for 100 kg of cement.

A 1.0% dosage of the product of the weight of cement is commonly used.

This product must be added to the mixing water.

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).

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.

### Tests

These results were obtained following the methods defined by the ISO 4012 norm (strength tests, graph A) and the EN 12358 norm (consistency tests, graph B).

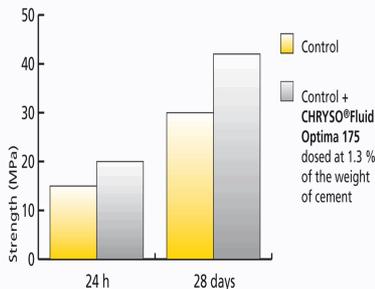


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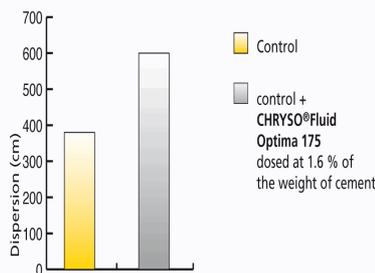
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Graph A  
At equal workability  
Concrete formulated with CEM I 42,5



Graph B  
For constant water/cement ratio  
Concrete formulated with CEM I 42,5 cement



one admixture for the concrete formulation of the foundations, piles and base sections.  
**Condamine Harbour, Monaco: precast caissons.**  
**Plane bridge Batch #15H, Roissy Charles de Gaulle Airport, France: prestressed concrete, poured via 2 pumps.**

### Safety

This product is classified as "harmless". In case of exposure, it is recommended to wear your protective equipment.

Before use, refer to the safety data sheet on our internet site [www.chryso.com](http://www.chryso.com)

### Construction sites references

Waste-water treatment plant of Le Havre, France: vibrated or self-compacting concrete for the moulded walls, compressive slabs, walls, ...

Public toilet booths for the Athens Olympic Games, France: SCC, fluid concrete and Glass Cement Composite concrete.

The Sioule viaduct (Motorway A89), France: concrete resisting to frost/defrost cycles.

New Tangiers Mediterranee harbour, Morocco: Accropode™ blocks and important height four-foil caissons.

Thrush Cape Harbour, Martinique: quays subject to violent climatic and seismic conditions, and pushes.

Millau Viaduct, France: three requirements, only

