

Technical data sheet

CHRYSO® Fluid Optima 206

New generation, high range water reducing/
superplasticising admixture that is particularly
adapted for use in SCC

Description

CHRYSO® Fluid Optima 206 is classified as a water reducing/ superplasticising admixture according to SANS 50934-2:2011 (EN 934-2:2009). The admixture thus induces the following major effects on a concrete mix:

- Without affecting the consistence, permits a high reduction in the water content of a given concrete mix or
- Without affecting the water content increases the slump/flow considerably or
- Produces both effects simultaneously

Advantages

Where the water/cement ratio is not altered, CHRYSO® Fluid Optima 206 increases workability.

Where prolonged slump retention is required, CHRYSO® Fluid Optima 206 can increase initial workability. The concrete will then maintain a high level of workability for longer and will still have the structural properties of plain concrete.

The compressive strength of concrete is increased as a direct result of the lower water/cement ratio.

CHRYSO® Fluid Optima 206 can be used at a high dosage, without unwanted side effects like air entrainment or set retardation.

CHRYSO® Fluid Optima 206 is formulated to create homogenous self-compacting concrete.

Standards

Physical and chemical properties

- Physical state: liquid
- Specific gravity (25°C): 1.05 (±0.02)
- Colour: brown - green
- pH: 7 (±2)
- Cl ions content: ≤ 0.1%
- Na₂O: ≤ 1%
- Solubility in water: miscible

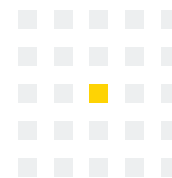
Application guidelines

Use

- Self-compacting concrete
- Readymix concrete
- High performance concrete
- High workability concrete
- Pumped concrete
- Highly reinforced concrete
- Structural concrete

Dosage

- The optimum dosage of CHRYSO® Fluid Optima 206 can only be established by using trial tests, taking into account local conditions affecting the workability of the fresh mix and the mechanical properties required of the concrete.
- Typical:
 - By volume: 0.29 to 2.86 litres per 100 kg of cementitious material (including extenders)
 - By weight: 0.3 to 3 kg per 100 kg cementitious material (including extenders)



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■ Range:

By volume 0.28 – 2.86 litres per 100 kg of
cementitious material (including extenders)

By weight 0.29 to 3.06 kg per 100 kg
cementitious material (including extenders)

Dispensing/mixing

- CHRYSO® Fluid Optima 206 is completely miscible in water.
- CHRYSO® Fluid Optima 206 should never be added to dry cement or to components of a mix that are dry.
- CHRYSO® Fluid Optima 206 can be added to concrete using one of the following methods:
 - To the gauge water before mixing: CHRYSO® Fluid Optima 206 should be added to approximately 90% of the concrete's total gauge water requirement (including admixture). The remaining 10% of the concrete's total gauge water requirement (without admixture) should be added in small increments until the target concrete workability is achieved.
 - As a component of the mixing process: Should be added simultaneously with approximately 90% of the concrete's total gauge water requirement.

- To fresh mixed concrete in a readymix truck drum: Reverse the readymix truck drum to discharge at very slow revolutions. When the concrete reached the mouth of the drum, stop the drum. Place CHRYSO® Fluid Optima 206 on the concrete and not onto any exposed surface of the drum interior. Change the direction of the drum onto mixing and thoroughly mix the concrete at maximum permissible drum rpm, in order to ensure effective dispersion of CHRYSO® Fluid Optima 206 throughout the concrete. (a minimum of 1minute per 1cubic metre of concrete; therefore 6 cubic metres = 6 minutes).

Storage

- CHRYSO® Fluid Optima 206 has a shelf life of 12 months starting from the manufacturing date – provided no other chemicals are added to it.
- The product should be stored away from the rain and frost in clean, dry tanks.
- Prevent product from freezing.

Packaging

- Bulk taker loads
- 1 000 litre flobin
- 200 litre blopak
- 25 litre jerrycan

Health and safety

This product is classified as harmless. CHRYSO will provide onsite assistance when requested. 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.