

Technical data sheet

CHRYSO® Plast Omega 122 W

New generation, high range water reducing plasticiser

Description

CHRYSO®Plast Omega 122 W is classified as a water reducing plasticiser 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 reduction in the water content or
- Without affecting the water content, increases the slump/flow or
- Produces both of the above effects simultaneously

Advantages

- CHRYSO®Plast Omega 122 W is a multi-dose admixture, allowing a wide range of dosages to be applied, without any excessive retardation at the higher dosages.
- The multi-dose characteristic of CHRYSO®Plast Omega 122 W allows concrete to exhibit extended workability characteristics.
- CHRYSO®Plast Omega 122 W is often used when problematic fine aggregates are components of a concrete mix.
- CHRYSO®Plast Omega 122 W reduces the rate of bleeding in a concrete mix.
- CHRYSO®Plast Omega 122 W improves the cohesion and lowers the viscosity of a concrete mix. This results in an improved homogeneity, allowing for superior off-shutter finishes.
- By reducing the need to add extra water, CHRYSO®Plast Omega 122 W increases the durability of concrete.
- CHRYSO®Plast Omega 122 W is robust to differences in cement characteristics.

- CHRYSO®Plast Omega 122 W does not undermine the early age strength of concrete.
- In common with all water reducing/plasticising admixtures, the use of CHRYSO®Plast Omega 122 W reduces the overall cost of a cubic metre of concrete. This in turn, allows less cement to be used in order to achieve the same objective, resulting in a solution, which is environmentally friendly.

Standards

CHRYSO®Plast Omega 122 W conforms to EN 934-2:2009 (table 2) and conforms to the requirements of ASTM C494 Type A.

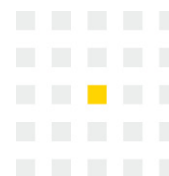
Physical and chemical properties

- Physical state: Light
- Colour: Brown
- Specific gravity (@ 25 °C): 1.12 (± 0.02)
- pH: 8 (± 2)
- Cl ions content: ≤ 0.1 %
- Na₂O: ≤ 2%
- Solubility in water: Miscible

Application guidelines

Use

- Readymix concrete.
- High workability concrete.
- Pumped concrete.
- Highly reinforced concrete.
- Roller compacted concrete.



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Dosage

- The optimum dosage of CHRYSO®Plast Omega 122 W 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: 0.27 to 0.72 L per 100 kg of cementitious material (including extenders)
- By weight: 0.3 to 0.8 kg per 100 kg cementitious material (including extenders)

■ Range

- By volume: 0.09 - 0.89 L per 100 kg of cementitious material (including extenders)
- By weight: 0.29 to 0.82 kg per 100 kg cementitious material (including extenders)

Dispensing/mixing

- CHRYSO®Plast Omega 122 W is completely miscible in water.
- CHRYSO®Plast Omega 122 W should never be added to dry cement or to components of a mix that are dry.
- CHRYSO®Plast Omega 122 W can be added to concrete using one of the following methods:

To the gauge water before mixing:

- CHRYSO®Plast Omega 122 W 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:

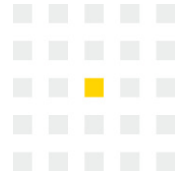
- Should be added simultaneously with approximately 90% of the concrete's total gauge water requirement.

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®Plast Omega 122 W 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®Plast Omega 122 W throughout the concrete. (A minimum of 1 minute per 1 cubic metre of concrete; therefore 6 cubic metres = 6 minutes).

Storage

- CHRYSO®Plast Omega 122 W 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.



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Packaging

- Bulk taker loads.
- 1 000 L flobin.
- 200 L blopak.
- 25 L jerrycan.

Health and safety

This product is classified as harmless. CHRYSO will provide onsite assistance when requested. Refer to the material safety data sheet.

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.