TECHNICAL DATA SHEET

Chryso Concrete Solutions

03/06/2026

CHRYSO®Plast Omega 101

Water reducing plasticiser

DESCRIPTION

- **CHRYSO® Plast Omega 101** is classified as a water reducing plasticizer. The admixture thus induces the following major effects in a concrete mix:
- Without affecting the consistence (workability), permits a reduction in the water content of a given concrete or
- Without affecting the water content, increases the slump/flow or
- Produces both of the above effects simultaneously.

BENEFITS

- **CHRYSO®Plast Omega 101** is a multidose 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 101** allows concrete to exhibit extended workability characteristics.
- **CHRYSO®Plast Omega 101** is often used when problematic fine aggregates are components of a concrete mix.
- **CHRYSO®Plast Omega 101** reduces the rate of bleeding in a concrete mix.
- **CHRYSO®Plast Omega 101** 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 101** increases the durability of concrete.
- The air entraining property of **CHRYSO®Plast Omega 101** enhances concrete's durability by increasing its freeze/thaw resistance.
- **CHRYSO®Plast Omega 101** is robust to differences in cement characteristics.
- CHRYSO®Plast Omega 101 does not undermine the early age strength of concrete.
- In common with all water reducing/plasticising admixtures, the use of **CHRYSO®Plast Omega 101** 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.

PHYSICAL and CHEMICAL PROPERTIES

Product Nature	Liquid
Color	Light brown
Lifetime	12 months
Water solubility	Miscible

METHOD OF USE

Use:

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

Dosage :

- The optimum dosage of **CHRYSO®Plast Omega 101** 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.

Range:

- By volume: 0.25 to 1.5 litres per 100 kg of cementitious material (including extenders)
- By weight: 0.27 to 1.62 kg per 100 kg cementitious material (including extenders)

Typical:

- By volume: 0.3 to 0.5 litres per 100 kg of cementitious material (including extenders)
- By weight: 0.32 to 0.54 kg per 100 kg cementitious material (including extenders)
- Dosages approaching and over 1.5 litres per 100 kg of cementitious material (including extenders), may progressively retard the concrete.

Dispensing/mixing:

- CHRYSO®Plast Omega 101 should never be added to dry cement or to components of a mix that are dry.
- CHRYSO®Plast Omega 101 can be added to concrete using one of the following methods:
- To the gauge water before mixing: CHRYSO®Plast Omega 101 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

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Halogen Dry Extract	27,00 % ± 2,00
Cl^- Ions content	≤ 0,100 %
Equivalent Content Na_2O	≤ 1,50 %
Dry extract (EN 480-8)	27,00 % ± 2,000
Specific Gravity	1.085 ± 2
Viscosity	10-20 secs (Ford #4 Cup)
pH	7.5 ± 1

Standards

- **CHRYSO®Plast Omega 101** conforms to the requirements of SANS 50934-2 (EN 934-2) Table 2) and ASTM C494 Type A.
- When evaluated according to the test requirements stipulated in SANS 50934-2 Table 2, depending on dosage, a mix incorporating **CHRYSO® Plast Omega 101** may entrain an amount of air, which exceeds the amount of air entrained by a control mix (no admixture), by more than 2% of concrete volume.

PACKAGING

- 1000 ℓ flow bin
- 200 ℓ drum
- 25 ℓ jerry can
- Bulk delivery on request

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 101 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 101 throughout the concrete. (a minimum of 1minute per 1cubic metre of concrete; therefore 6 cubic metres = 6 minutes).

PRECAUTIONS

Storage:

- **CHRYSO®Plast Omega 101** has a shelf life of 9 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.

SAFETY

Health and safety

- This product is classified as harmless. CHRYSO will provide onsite assistance when requested.
- For more information, please refer to the material safety data sheet.

Prior to any use, please read carefully the Material Safety Data Sheets.

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