TECHNICAL DATA SHEET

Chryso Concrete Solutions

17/10/2024

CHRYSO®Plast Omega 122

Water reducing plasticiser

DESCRIPTION

- **CHRYSO® Plast Omega 122** is classified as a water reducing plasticiser. 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.

Quad

BENEFITS

- **CHRYSO® Plast Omega 122** 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** allows concrete to exhibit extended workability characteristics.
- When used to reduce the water content of a concrete mix (lower the w/b ratio) **CHRYSO® Plast Omega 122** may potentially reduce the rate of bleeding.
- **CHRYSO® Plast Omega 122** improves the cohesion and lowers the viscosity of a concrete mix. This results in an improved homogeneity and compaction, allowing for superior off-shutter finishes.
- By reducing the need to add extra water, **CHRYSO® Plast Omega 122** increases the durability of concrete, by reducing permeability.
- **CHRYSO® Plast Omega 122** is robust to differences in cement characteristics. Based on aesthetic requirements, its suitability for use with white cement, should be ascertained prior to use.
- **CHRYSO® Plast Omega 122** may be used with in mixes extended with limestone and/or typically used SCMs – GGBS, GGCS, Fly Ash and Silica Fume.
- **CHRYSO® Plast Omega 122** does not undermine the early age strength of concrete and in certain cases, may be used to improve it.
- Depending on the dosage, **CHRYSO® Plast Omega 122** will cause a relative increase of mechanical strength after 24 hours.

METHOD OF USE

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

Dispensing/mixing:

- **CHRYSO®Plast Omega 122** should never be added to dry cement or to components of a mix that are dry.
- **CHRYSO®Plast Omega 122** can be added to concrete using one of the following methods:
- To the gauge water before mixing: **CHRYSO®Plast Omega 122** 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** 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** throughout the concrete. (a minimum of 1 minute per 1 cubic metre of concrete; therefore 6 cubic metres = 6 minutes).

PHYSICAL and CHEMICAL PROPERTIES

Product Nature	Liquid
Color	Brown
Lifetime	12 months

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Water solubility	Miscible
Halogen Dry Extract	22,50 % ± 2,00
Cl^- Ions content	≤ 0,100 %
Equivalent Content NA_2O	≤ 2,00 %
pH	7,00 ± 1,00
Dry extract (EN 480-8)	22,50 % ± 2,000
Specific Gravity	1.08 ± 2
Viscosity	10 - 20 secs (Ford #4 Cup)

Standards

CHRYSO® Plast Omega 122 conforms to the requirements of SANS 50934-2 (EN 934-2) Table 2). These requirements are approximate equivalents of ASTM C494 Type A.

PACKAGING

- 1000 ℓ flow bin
- 200 ℓ drum
- 25L Container
- Bulk delivery on request

Dosage :

- The optimum dosage of **CHRYSO®Plast Omega 122** 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.
- Dosages will largely depend on a combination of binder composition, binder content, weather conditions at manufacturing plant and environmental conditions at point of placement.

Typical:

- By volume: 0.3 to 0.6 litres per 100 kg of cementitious material (including extenders)
- By weight: 0.33 to 0.66 kg per 100 kg cementitious material (including extenders)

Range:

- By volume: 0.3 – 0.7 litres per 100 kg of cementitious material (including extenders)
- By weight: 0.33 to 0.77 kg per 100 kg cementitious material (including extenders)

PRECAUTIONS

Storage

- **CHRYSO® Plast Omega 122** has a shelf life of 18 months starting from the manufacturing date – provided no other chemicals are added to it.
- The product should be stored away from rain and frost in clean, dry tanks.

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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