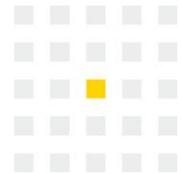


Technical data sheet

CHRYSO® Fluid L

High range water reducing/ superplasticising admixture



Description

CHRYSO® Fluid L is classified as a high range 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.

Standards

- **CHRYSO® Fluid L** conforms to EN934 – 2:2009 (SANS 50934-2) and ASTM C494 Type F as well as BS 5075 Part 1 and Part 3; NFP 18103 18333 and 18336.

Advantages

- Can be used to manufacture a wide range of concrete.
- **CHRYSO® Fluid L** is compatible with most types of cement (except aluminous cement).
- **CHRYSO® Fluid L** is compatible with most types of SCMs like slag, fly ash and silica fume.
- Cement content optimised for desired mechanical strengths.
- The early mechanical strength of concrete is increased as a direct result of the lower water/ cement ratio.
- No segregation.
- Quick hardening - certain synthetic chemical components within **CHRYSO® Fluid L** may cause a slight set acceleration, particularly at low temperatures.

Physical and chemical properties

- Physical state: Liquid
- Specific gravity (25 °C): 1.2 (±0.01)
- Colour: brown
- pH: 12 (±1)
- Cl⁻ ions content: nil
- Na₂O: typically, less than 72 g/ℓ of admixture

- The accelerating agents contained in **CHRYSO® Fluid L**, combined with significant water reduction results in high mechanical strengths of all ages.

Application guidelines

Use

- Pre-stressed concrete
- Readymix concrete
- Precast concrete

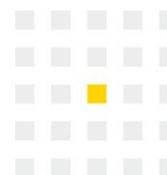
Directions

- Dosage: The optimum dosage of **CHRYSO® Fluid L** can only be established by carrying out trial tests, taking into account the cementitious content, the local conditions affecting the workability of the fresh mix and the mechanical properties required of the concrete.
- Range:
 - By volume: 0.6 to 2.00 ℓ per 100 kg of cementitious material (including extenders).
 - By weight: 0.72 to 2.4 per 100 kg of cementitious material (including extenders).
- Overdosing will result in significant retardation and will tend to increase the plasticising effect of the admixture.

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- Overdosing will also cause increased air entrainment, which will reduce ultimate strengths.

Dispensing/mixing

- **CHRYSO®Fluid L** is completely miscible in water and should be added to all or part of the mixing water.
- **CHRYSO®Fluid L** should never be added to dry cement or to components of a mix that are dry.
- The correct quantity of **CHRYSO®Fluid L** should be measured using a recommended dispenser. Consult a **CHRYSO** representative for advice regarding suitable equipment and its installation.
- Best results are obtained when **CHRYSO®Fluid L** is added after the mixing water has been added to the concrete.
- **CHRYSO®Fluid L** can be added to concrete using one of the following methods:
 - To the gauge water before mixing: **CHRYSO®Fluid L** 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 rotation to discharge at very slow revolutions. When the concrete has reached the mouth of the drum, stop the drum rotation. Place **CHRYSO®Fluid L** on the

concrete and not onto any exposed surface of the drum interior. Change the rotation direction of the drum to mixing and thoroughly mix the concrete at maximum permissible drum rpm, in order to ensure effective dispersion of **CHRYSO®Fluid L** throughout the concrete.

- For each of the above recommendations, thorough mixing is essential to ensuring homogenous concrete. Once all mix components have been loaded/dispensed into a readymix truck drum, mix at maximum permissible rpm, for a recommended minimum of 1 minute per m³; (therefore 6 m³= 6 minutes).

Storage

- **CHRYSO®Fluid L** has a shelf life of 12 months starting from the date of manufacture provided no other chemicals are added to it.
- The product should be stored away from the rain and frost in clean, dry tanks.
- Freezing point: -15 °C

Packaging

- Bulk tanker loads
- 1 000 litre flobins
- 200 litre drums
- 25 litre jerrycans

Health and safety

- This product is classified as "harmless". **CHRYSO** will provide onsite assistance when requested.
- For further information, please 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.