

# MasterCO<sub>2</sub>re 3602

High range water reducing admixture for low clinker concrete production, with superior rheology, reduced mixing time - EN 934-2: T3.1 & T3.2

## Material Description

MasterCO<sub>2</sub>re 3602 is an innovative superplasticizer, based on the Intelligent Cluster System (ICS) Technology, developed in the R&D Laboratories of Master Builders Solutions. MasterCO<sub>2</sub>re 3602 combines the performances of fluidification, high early and ultimate strength with superior rheology, in one single solution. It improves considerably the pumpability, placing and finishing of concrete, simplifying the operations for all construction activities.

This advanced technology provides the perfect choice for stable and robust concrete performance in challenging low-clinker applications, paving the way for a more responsible future in the construction industry.

The polymer structure of MasterCO<sub>2</sub>re 3602 is specially designed to improve the rheology of ready-mix concrete, making it more workable and with low viscosity even at low water/cement ratios. Robustness, surface finish, and reduced mixing time are a distinctive feature of the concrete produced with MasterCO<sub>2</sub>re 3602.

## Areas of Application

MasterCO<sub>2</sub>re 3602 is suitable for making concrete with low clinker contents with highly-fluid concrete without segregation but low water/cement ratios and, consequently, high early and final strengths.

## Characteristics and Benefits

MasterCO<sub>2</sub>re 3602 offers the following benefits for the concrete industry:

- Enhanced robustness combined with low stickiness.
- Environmentally friendly, CO<sub>2</sub> reduced mix-design optimization.

- Elimination or reduction of the energy required for placing, compaction and curing.

## Dosage

Field trials should be conducted to determine the optimum addition rates of MasterCO<sub>2</sub>re 3602. As a starting point, the following dosage range is recommended.

- *By Volume* - 0.4 to 1.00 litres per 100 kg of cement (binder).
- *By Mass* - 0.42 to 1.06 kg per 100 kg of cement (binder).

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilised in special cases, according to specific job conditions. If required consult our Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

## Mixing

MasterCO<sub>2</sub>re 3602 is a ready-to-use liquid admixture, which should be added to the concrete during the mixing process together with the water. This is particularly important to obtain maximum efficacy. For best performance, it is advisable to dispense after 50 to 70% of the mixing water has been added, and then continue mixing until the mix is completely homogeneous.

## Dispensing

MasterCO<sub>2</sub>re 3602 should be dispensed through a proprietary dispenser. Details are available on request from our Technical Services Department

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## Compatibility

MasterCO<sub>2</sub>re 3602 can be used with all types of EN 197 Cements. For use with other special cements, contact our Technical Services Department. MasterCO<sub>2</sub>re 3602 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing MasterCO<sub>2</sub>re 3602, they must be dispensed separately.

When such complimentary admixtures are required, it is important that laboratory trials are performed, prior to any supply, to determine the respective dosages of any complimentary admixture, and the suitability, in the fresh and hardened state, of the resultant concrete. In these circumstances, we recommend that you consult our Technical Services Department for further advice.

## Packaging

MasterCO<sub>2</sub>re 3602 is supplied in Bulk, 1000-litre IBC's and 15-litre containers.

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Product Data	
Appearance:	Beige liquid
Specific gravity @ 20°C:	1.09 ± 0.02 g/cm <sup>3</sup>
pH-value:	9.0 ± 1
Solids content (%):	31.0 ± 1.5
Alkali content (%):	< 1.0% by mass
Chloride content (%):	< 0.1% by mass
Corrosion behaviour:	Contains only components according to BS EN 934-1:2008, Annex A. I
Logistics	
Shelf life:	12 months if stored according to manufacturer's instructions in unopened container.
Storage conditions:	Store in original sealed containers and at temperatures between 5°C and 30°C. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
Handling and transportation:	Refer to MasterCO <sub>2</sub> re 3602 Safety Data Sheet
Disposal:	Refer to MasterCO <sub>2</sub> re 3602 Safety Data Sheet

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## DISCLAIMER

MasterCO<sub>2</sub>re 3602, Master Builders Solutions UK Ltd, Version 2

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

**Health and Safety:** \*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted. **Spillage:** Chemical products can cause damage; clean spillage immediately.

**DISCLAIMER:** "Master Builders Solutions UK Ltd" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use. Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application. Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.

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Declaration of Performance can be found at:  
[www.master-builders-solutions.com/en-gb](http://www.master-builders-solutions.com/en-gb)

### Master Builders Solutions UK Ltd

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