

MasterGlenium 27

High range water reducing / superplasticising admixture – SR EN 934-2: Tab. 3.1/3.2

Material Description

High range water-reducing admixture based on polycarboxyl-ether polymers, developed for production of ready-mixed concrete, where maintaining workability over time, high compressive strength and high durability are necessary.

Areas of Application

- Transport concrete with extended workability retention
- Fluid concretes, very robust and easily pumpable
- Massive concrete casting
- High class concretes;
- Self-compacting concrete;

Used in combination with **MasterMatrix SDC** allows:

- production of stable superfluid / self-compacting concrete with reduced dosages of fine parts (380 ÷ 400 kg/m³ cement and filler).

Used in combination with **MasterSuna SBS** allows:

- the use of difficult aggregates - contaminated and/or with a deficient granulometric curve - in production of fluid, stable and homogeneous concretes having a proper A/C ratio

Used in combination with **MasterX-Seed** allows:

- obtaining the required short-terms resistances in very low temperatures conditions and/or in case of using composite cements, with a low clinker content

Characteristics and Benefits

What differentiates **MasterGlenium 27** from traditional admixtures is the mechanism of action, which greatly improves the efficiency of cement dispersion.

This mechanism allows the manufacture of concrete with prolonged processing properties (reduced loss of consistency over time), without significant effects on the strength development.

- Positive effect on the cohesiveness of the mixture - easy pumping and an improved compaction capacity, making it easier placing and finishing;
- Improves dimensional stability and reduces the risk of shrinkage cracks, provided a correct protection.
- Due to maintaining the consistency over time, it ensures the use of a concrete with the same characteristics as the one specified and ordered at the concrete station.
- Obtaining concretes with low viscosity, not sticky, easy to compact and finish.
- Obtaining concrete with a high degree of stability, in the conditions of possible variations of the characteristics of the other raw materials from the concrete composition

Processing

(A) Dosage

Usual dosage: 0,40 ÷ 2,00 % by weight of cement

(B) Mixing

Ready-to-use admixture to be added to the concrete during the mixing process. Avoid adding the additive over the dry mixture.

The maximum plasticizing effect is obtained when the additive is added with the last part of the mixing water, once approx. 50-70% of the amount of water was mixed with the other concrete components.

Depending on the mixing conditions, it may require longer mixing time.

In case of dosing before pouring/re-dosing, to ensure a good mass homogenization, it is recommended a mixing at maximum speed for minimum 3 minutes.

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(C) Recommendations

The effect of the admixtures differs depending on the type and source of cement, nature and particle size curve of the aggregates, hardness of the water, concrete/ambient temperature, mixing and transport type, etc.

To establish the optimal dosage in order to ensure the required degree of plasticizing/water reducing and maintaining adequate workability, preliminary determinations with materials used in production and job conditions are necessary.

In case of PCE admixtures, e.g. **MasterGlenium & MasterPolyheed** range, the admixture dosage has influence both on initial workability and on workability retention in time.

Particular attention will be given to concrete treatment after casting process - adequate and sufficient protection of the concrete against water evaporation using anti-evaporation agents with a high degree of blocking **MasterKure WB**.

(D) Compatibility

MasterGlenium 27 is compatible with all cements meeting EN 197-1 and ASTM standards and is recommended to be used with:

- **MasterAir** - range air entraining agents whenever concrete is required to withstand freeze-thaw cycling (as required ASTM si UNI EN 206-1).
- **MasterPel** - water resisting, for increasing impermeability of concrete.
- **MasterLife SRA** to obtain shrinkage compensated concrete
- **MasterKure**, curing compound applied to fresh concrete surfaces exposed to air.
- **MasterFinish**, release agents for easy formwork removal and improved concrete.

Handling

Avoid contact with skin and eyes. It will be take into consideration and it will be respect the the labor protection measures foreseen when the handling chemicals.

First Aid Measures

After contact with skin: wash immediately with plenty of water and soap. After contact with eyes: wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

Environmental Precautions

Do not discharge the product on the ground, into drains/surface waters/groundwater, even in small quantities. Comply with the national regulations regarding environmental protection.

Safety Instructions

For details please ask for updates safety data sheet to phone: 0344 520 100 or at the e-mail address: marketing.mbs-romania@masterbuilders.com

Consultancy

For specific advice or consulting, please contact Technical Representative in your area, or contact us directly at phone: 0344 520 100

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<i>Product Parameters: MasterGlenium 27</i>	
Chemical composition	solution based on polycarboxylate eter in water
State / Appearance / Color	lichid homogenous brownish
Relative density @ 20°C	1,05 ± 0,02 kg/dm ³
pH Value	5,5 ± 1,50
Chlorine content soluble in water (Cl-)	< 0,10 M-%
Alkali content (Na ₂ O-Equivalent)	< 3,00 M- %
Water hazard class	WGK 1: slightly polluting for water
<i>Logistics</i>	
Validity period	12 months in sealed containers respecting the storage conditions
Storage conditions	Original containers, unopened, from + 5°C to + 30°C. Protected from direct solar exposure, frost, contamination. The storage containers and the dosing installation will be cleaned/disinfected periodically. In the case of storage for a longer period, the product will be mixed/homogenized before use.
Dangerous goods according to ADR / SDR	The goods are not dangerous according to the transport rules

Disclaimer

All information and technical recommendations in this document are based on our current knowledge and experience. This document serves to describe the composition of this product, its characteristics and its processing and commissioning capacity, subject to compliance with the transport, storage and processing instructions. The manufacturer assumes no responsibility if these conditions are not respected. Due to the many factors that can affect the final results, certain properties of the product put into operation or its suitability for a specific use cannot be guaranteed. The buyer has the obligation to test the suitability of the product before proceeding to its complete application. The performance of the product must be verified through tests carried out by qualified experts and adapted to the purpose, local conditions, external influences, etc. Any descriptions, drawings, photos, data, proportions, weights, etc. mentioned in this document can be modified without any prior information. It is the responsibility of the beneficiary of the product to ensure that all existing property rights, laws and regulations are respected. Users must consult the latest version of the product's Technical Data Sheet, a copy of which is delivered upon request.

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