

MasterGlenium 119

Polycarboxylic ether-based superplasticizer for the production of high-quality ready-mix concrete

MATERIAL DESCRIPTION

MasterGlenium 119 is an innovative second-generation superplasticizer based on polycarboxylic ether (PCE) polymers and is specially engineered for ready-mix concrete.

MasterGlenium 119 is differentiated from conventional superplasticisers, such as those based on sulphonated naphthalene formaldehyde condensate in that it is based on a unique carboxylic ether polymer with long lateral chains. This greatly improves cement dispersion. At the start of the mixing process the same electrostatic dispersion occurs but the presence of the lateral chains, linked to the polymer backbone, generate a steric hindrance which stabilises the cement particles capacity to separate and disperse. This mechanism provides flowable concrete with greatly reduced water demand.

FIELD OF APPLICATION

MasterGlenium 119 is used for the production of high-quality ready-mix concrete.

FEATURES AND BENEFITS

The ready-mix producer:

- Capability of delivering high performance concrete at any time to the job site.
- Production of a concrete with low water cement ratios with excellent workability retention properties.
- Single product for many application needs.

The contractor / applicator:

- Easier placing and faster strength development.
- Improved concrete surfaces.
- Guarantee to place the same concrete as specified and ordered from ready-mix plant.

The engineer:

- Insurance that concrete meets original specification.
- High quality durable concrete.

PACKAGING

MasterGlenium 119 is available in 1000 litre IBCs or in bulk.

TYPICAL PROPERTIES*

Properties listed are for guidance and are not a guarantee of performance.

Appearance	Brownish liquid
Specific gravity @25°C	1.060 -1.080
pH value	5.0 – 7.0
Chloride Content	“Chloride-free” to EN 934-2

The occurrence of a surface layer with **MasterGlenium 119** is normal and will have no effect on the performance of the product.

STANDARDS

ASTM C-494 Type F&G
 BS EN 934-2

DOSAGE

The normally recommended dosage rate of **MasterGlenium 119** is 0.8 to 2.5 litres per 100kg of total cementitious material.

Other dosages may be recommended in special cases according to specific site conditions. In this case please consult our Technical Services Department for advice.

It is recommended that trials be conducted with the actual materials to be used and at the specified **MasterGlenium 119** dose rates to verify performance before proceeding to application.

MIXING

MasterGlenium 119 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal results are obtained if **MasterGlenium 119** is poured into the concrete mix right after the addition of the first 80% of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.

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COMPATIBILITY

MasterGlenium 119 is not compatible with MasterRheo-build superplasticizers.

MasterGlenium 119 is suitable for mixes containing:

- Microsilica (Silica Fume)
- Fly Ash (PFA)
- GGBS (ground granulated blast furnace slag)

STORAGE

MasterGlenium 119 should be stored out of direct sunlight and protected from extremes of temperatures. The shelf life is 12 months from date of manufacture when stored as above.

HANDLING AND TRANSPORTATION

No special requirements must be observed during use. Protection gloves and glasses are however recommended. **MasterGlenium 119** is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

SAFETY PRECAUTIONS

MasterGlenium 119 contains no hazardous substances requiring labelling. For further information refer to the Material Safety Data Sheet.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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