

MasterGlenium® 112AE

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

DESCRIPTION

MasterGlenium 112AE is an innovative second-generation superplasticizer based on polycarboxylic ether (PCE) polymers and is specially engineered for ready-mix concrete.

MasterGlenium 112AE 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.

TYPICAL APPLICATIONS

MasterGlenium 112AE is used for the production of high quality ready-mix concrete.

ADVANTAGES

The ready-mix producer:

- Capability of delivering high performance concrete at any time to the job site in place
- 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 112AE is supplied in 210 L drums, 1,000 L containers or in bulk

STANDARDS

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

TYPICAL PROPERTIES*

Appearance	Medium to dark brown coloured liquid
Specific gravity @ 25°C	1.062
pH value	4.0 – 7.0
Chloride content	"chloride-free" to EN 934

APPLICATION GUIDELINES

The normally recommended dosage rate of **MasterGlenium 112AE** is 0.8 - 2.5 L/100kg of total cementitious material.

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

MIXING

MasterGlenium 112AE is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if **MasterGlenium 112AE** 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.

MasterGlenium 112AE is suitable for mixes containing:

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

Note: **MasterGlenium 112AE** is not compatible with **MasterRheobuild** superplasticizers.

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STORAGE AND SHELF LIFE

MasterGlenium 112AE should be stored out of direct sunlight and protected from extremes of temperature. The shelf life is 12 months when stored as above.

The occurrence of a surface layer with **MasterGlenium 112AE** is normal and will have no effect on the performance of the product.

HEALTH AND SAFETY

No special requirements must be observed during use. Protection gloves and glasses are recommended. **MasterGlenium 112AE** is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

MasterGlenium 112AE contains no hazardous substances requiring labelling. For further information refer to the Material Safety Data Sheet.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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