

MasterGlenium[®] SKY 504E

New polycarboxylic ether superplasticizer for the production of high quality ready-mix concrete with low water cement ratio and exceptional workability

DESCRIPTION

MasterGlenium SKY 504E is an innovative third generation superplasticizer based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control™ concept. **MasterGlenium SKY 504E** is specially engineered for ready-mix concrete. Its particular configuration allows its delayed adsorption onto the cement particles and disperses them efficiently. As compared with other PCE superplasticizers, it is possible to obtain a high quality concrete mix with accelerated strength development and extended workability without delayed setting characteristics.

The Total Performance Control™ concept ensures that ready-mix producers, contractors and engineers get a concrete that is of the same high quality as originally specified; starting from production at the batching plant, to the delivery and application into place, and followed by its hardening process. Utilizing Smart Dynamic Concrete technology it provides a concrete mix with exceptional placing characteristics and accelerated cement hydration for early strength development and high quality concrete.

MasterGlenium SKY 504E may be used in combination with **MasterMatrix** for producing Smart Dynamic Concrete (SDC). The technology produces advanced self compacting concrete, without the aid of vibration. For economic, ecological and ergonomic ready-mix / precast concrete production.

TYPICAL APPLICATIONS

MasterGlenium SKY 504E is used for the production of high quality ready-mix concrete.

MasterGlenium SKY 504E may be used in combination with **MasterMatrix** admixtures for producing Smart Dynamic Concrete, capable of self-compaction, even in the presence of dense reinforcement.

ADVANTAGES

MasterGlenium SKY 504E offers the following benefits for:

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 without loss of workability
- 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 SKY 504E is supplied in 210 L drums, 1,000 L containers or in bulk.

STANDARDS

ASTM C-494 Type F&G
 ASTM C-1017 Type I & II

TYPICAL PROPERTIES*

Appearance	Whitish to straw coloured liquid
Specific gravity @ 25°C	1.110
pH value	4.0 - 7.0

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APPLICATION GUIDELINES

The normally recommended dosage rate of **MasterGlenium SKY 504E** is 0.75 to 2.0 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 SKY 504E is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if **MasterGlenium SKY 504E** 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.

In order to optimize special requirements the use of the following complementary additives is suggested:

- Viscosity modifying agent **MasterMatrix** to produce Smart Dynamic Concrete.
- Air entraining agent **MasterAir** to improve frost/thaw resistance.

Note: **MasterGlenium SKY 504E** is not compatible with **MasterRheobuild** superplasticizers.

STORAGE AND SHELF LIFE

MasterGlenium SKY 504E 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 SKY 504E** 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 however recommended. **MasterGlenium SKY 504E** is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

MasterGlenium SKY 504E 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

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NOTE

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