

GLENIUM[®] SKY 504 E

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

Description

GLENIUM[®] SKY 504 E is an innovative second generation superplasticizer based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control[™] concept. GLENIUM[®] SKY 504 E 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.

GLENIUM[®] SKY 504 E may be used in combination with RheoMATRIX 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.

Fields of application

GLENIUM[®] SKY 504 E is used for the production of high quality ready-mix concrete.

GLENIUM[®] SKY 504 E may be used in combination with RheoMATRIX admixtures for producing Smart Dynamic Concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features and Benefits

GLENIUM[®] SKY 504 E 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

GLENIUM[®] SKY 504 E

Packaging

GLENIUM[®] SKY 504 E is supplied in 210 litre drums, 1,000 litre containers or in bulk.

*Typical properties

Appearance	Whitish to straw coloured liquid
Specific gravity @ 25°C	1.110
pH value	5-8

Standards

ASTM C-494 Type F&G

ASTM C-1017 Type I & II

Application procedure

Dosage

The normally recommended dosage rate of GLENIUM[®] SKY 504 E is 0.75 to 2.0 litre per 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

GLENIUM[®] SKY 504 E is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if GLENIUM[®] SKY 504 E 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.

Compatibility

GLENIUM[®] SKY 504 E is not compatible with RHEOBUILD[®] superplasticizers.

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

- Viscosity modifying agent RheoMATRIX to produce Smart Dynamic Concrete.
- Air entraining agent MICRO-AIR[®] to improve frost/thaw resistance

Storage

GLENIUM[®] SKY 504 E should be stored out of direct sunlight and protected from extremes of temperature. The shelf life is 9 months when stored as above.

Handling and transportation

No special requirements must be observed during use. Protection gloves and glasses are however recommended. GLENIUM[®] SKY 504 E is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

Safety precautions

GLENIUM SKY 504 E contains no hazardous substances requiring labelling. For further information refer to the Material Safety Data Sheet.



The Chemical Company

GLENIUM[®] SKY 504 E

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's 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, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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