

GLENIUM[®] SKY 510

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

Description of Product

GLENIUM SKY 510 is an innovative second generation superplasticiser based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control[™] concept. GLENIUM SKY 510 is specially engineered for ready-mix concrete. Its particular configuration allows its delayed absorption onto the cement particles and disperses them efficiently. As compared with other PCE superplasticisers, 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. Utilising Rheodynamic[™] concrete technology, it provides a concrete mix with exceptional placing characteristics and accelerated cement hydration for early strength development and high-quality concrete.

Fields of Application

GLENIUM SKY 510 is used for the production of high quality ready-mix concrete.

GLENIUM SKY 510 may be used in combination with GLENIUM STREAM admixtures for producing Rheodynamic[™] concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features and Benefits

GLENIUM SKY 510 offers the following benefits for:

The ready-mix producer:

- Capability of delivering high quality concrete at any time to the job site in place

- Production of a concrete with low w/c/ ratio that meets EN 206-1 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
- More versatile and forgiving concrete mix

The engineer:

- Insurance that concrete meets original specification
- High quality concrete with better durability

Technical Data/Typical Properties

| | |
|--|------------------------|
| Appearance | Brown liquid |
| Specific gravity at 20°C: | 1.06kg/dm ³ |
| Viscosity at 20°C: | 30-200 mPa s |
| Solid content:: | 26% |
| pH value: | 5-8 |
| Chloride ion content: | 0.01% |
| Alkali content (as Na ₂ O equivalent) | 0.26% |

Application Procedure Dosage

The normally recommended dosage rate of GLENIUM SKY 510 is 0.8 to 1.5% of the binder content.

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

Mixing

GLENIUM SKY 510 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if GLENIUM SKY 510 is poured into the concrete mix right after the addition

Adding Value to Concrete

GLENIUM[®] SKY 510

of the first 80% of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to dry aggregates.

Compatibility

GLENIUM SKY 510 is compatible with RHEOBUILD superplasticisers.

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

- Viscosity modifying agent GLENIUM STREAM to produce RheodynamicTM concrete
- Air-entraining agent MICRO-AIR to improve frost/thaw resistance

Packaging

GELNIUM SKY 510 is supplied in 210ltr drums, 1000ltr containers or in bulk.

Storage

GELNIUM SKY 510 should be stored in original sealed containers and at temperatures between 5°C and 30°C.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult BASF's Technical Services Department.

Shelf Life

Up to 24 months if stored according to manufacturer's instructions in unopened containers.

Handling and Transportation

No special requirements must be observed during use. Protection gloves and glasses are however recommended. GLENIUM SKY 510 is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

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 Statement

All products manufactured by BASF Egypt, or imported from BASF affiliate companies world-wide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2000, ISO 14001:2004 & OHSAS 18001:1999 standards.

12/07 BASF-EG

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