

## High range water reducing/superplasticizing admixture



CE Approved – Certificate No. 0086-CPD-469071  
EN934 part 2 tables 3.1 & 3.2

### Description of Product

GLENIUM® SKY 544 is an innovative second-generation superplasticizer based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control™ concept. GLENIUM® SKY 544 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 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 544 is used for the production of high quality ready-mix concrete.

GLENIUM® SKY 544 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 544 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 water cement 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 @ 20°C	1.08 ± 0.02 g/cm <sup>3</sup>
pH-value	6.0 ± 1
Alkali content (%)	Less than or equal to 2.00
Chloride content (%)	Less than or equal to 0.10

**Application Procedure****Dosage**

The normally recommended dosage rate of GLENIUM<sup>®</sup> SKY 544 is approximately:

*By Volume* - 0.185 to 1.389 litres per 100 kg of cement (binder) content.

*By Weight* - 0.20 to 1.50 kg per 100 kg of cement (binder) content.

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<sup>®</sup> SKY 544 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if GLENIUM<sup>®</sup> SKY 544 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<sup>®</sup> SKY 544 is not compatible with RHEOBUILD<sup>®</sup> superplasticizers.

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

- Viscosity modifying agent GLENIUM<sup>®</sup> STREAM to produce Rheodynamic<sup>™</sup> concrete
- Air entraining agent MICRO-AIR<sup>®</sup> to improve frost/thaw resistance

**Packaging**

GLENIUM<sup>®</sup> SKY 544 is supplied in Bulk, 1000-litre IBC's, 205-liter drums and 25-litre containers.

**Storage**

GLENIUM<sup>®</sup> SKY 544 must be stored in original sealed containers and at temperatures between 5°C and 30°C. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult our Technical Services Department.

**Shelf Life**

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

**Handling and Transport**

No special requirements must be observed during use. Protection gloves and glasses are however recommended. GLENIUM<sup>®</sup> SKY 544 is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

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GLENIUM<sup>®</sup> SKY 544, BASF plc, Construction Chemicals, Version 6**Health and Safety**

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

**Spillage**

Chemical products can cause damage; clean spillage immediately.

**DISCLAIMER**

"BASF plc, Construction Chemicals " (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.