

GLENIUM 107 SURETEC

New generation superplasticising admixture for extended slump retention

DESCRIPTION

GLENIUM 107 SURETEC is one of the new generation superplasticisers with super retention technology. **GLENIUM 107 SURETEC** contains polycarboxylate ether polymers and is specially formulated for ready-mixed concrete where moderate slump retention, high strength and durability are required. The degree of slump retention will depend on ambient temperature, mix design and dose rate. Generally, for a given mix design and dose rate, slump retention will be reduced with increasing temperature. The excellent dispersion effect makes **GLENIUM 107 SURETEC** the ideal admixture for the ready-mixed concrete industry. The ability to work with low water/cement ratios and still obtain extended slump retention allows for the manufacture of high quality concrete.

GLENIUM 107 SURETEC is free of added chlorides, complies with AS1478.1–2000, Type MWR/HWR, and is compatible with all cements meeting recognized international standards.

Chemistry and Mechanism of Action

Conventional superplasticisers, such as those based on sulphonated melamine and naphthalene formaldehyde condensates, at the time of mixing, become absorbed onto the surface of the cement particles. This absorption takes place at a very early stage in the hydration process. The sulphonic groups of the polymer chains increase the negative charge on the surface of the cement particle and dispersion of the cement occurs by electrostatic repulsion. **GLENIUM 107 SURETEC** is differentiated from conventional superplasticisers in that it is based on a unique polycarboxylate ether polymer with long lateral chains. This greatly improves cement dispersion. At the start of the mixing process the same electrostatic dispersion occurs as described previously, but the presence of the lateral chains, linked to the polymer backbone, generates a steric hindrance which stabilises the cement particles capacity to separate and disperse.

This mechanism provides flowable concrete with greatly reduced water demand.

RECOMMENDED FOR

- concrete with less water content than with conventional admixtures
- faster mixing logistics during large jobs
- high flowability concrete
- mid range slump concrete
- highly durable concrete
- ready-mixed concrete
- mass concrete
- long distance transport
- pumped concrete
- hot weather concreting

FEATURES AND BENEFITS

- **Variable water reduction - high early and ultimate strengths. Low permeability, high durability concrete.**
- **High flowability - ease of placing and compaction. No segregation.**
- **Superior slump retention - no re - tempering. Ease of delivery to point of placement.**
- **Low shrinkage and creep - improve dimensional stability. Reduced risk of cracks.**
- **Good cohesion - ease of pumping.**
- **Good workability - excellent surface finish.**
- **Suitable for use with self-compacting concrete.**
- **Minimal to nil bleed water - Excellent concrete quality.**
- **High elastic modulus - Superior load bearing capacity.**

APPLICATION

GLENIUM 107 SURETEC is a ready-to-use admixture, added to the concrete mix as a separate component. Optimal water reduction and workability is obtained if **GLENIUM 107 SURETEC** is poured into the concrete mix right after the addition of the first 50 -70% of the mixing water. Avoid adding the admixture to the dry aggregates. A separate dispenser and feed line must be used.

DOSAGE

Dosage of **GLENIUM 107 SURETEC** depends on the mix design, ambient conditions and degree of water reduction and workability required.

GLENIUM 107 SURETEC is normally dispensed at a rate of 300ml to 1000ml per 100kg of cementitious material. Other dosages may also be used depending on the specific mix design and working conditions but should be trialed first to verify performance.

GLENIUM 107 SURETEC can be used in combination with other BASF admixtures such as **GLENIUM**, **RHEOMAC**, **RHEOPLUS** or **POZZOLITH** to achieve longer slump retention or other specific working requirements. The dosage employed in such cases may be different from the above recommendation.

Trial mixes should be made with job materials and all admixtures or combinations to determine the optimum dosages required and to verify concrete performance for a specified job requirement before commencing supply.

GLENIUM 107 SURETEC is not compatible for use with admixtures based on naphthalene formaldehyde condensates such as **RHEOBUILD**.

PACKAGING

GLENIUM 107 SURETEC is available in bulk, 1000 litre pallecons, 205 litre drums & 20 litre cubes.



The Chemical Company

GLENIUM 107 SURETEC

SHELF LIFE

GLENIUM 107 SURETEC can be stored for 12 months if stored at a temperature above 0°C and in tightly sealed original containers. If frozen, thaw it and completely reconstitute by mild agitation. Do not use compressed air.

PRECAUTIONS

GLENIUM 107 SURETEC does not contain any hazardous substances requiring labelling. For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF **Material Safety Data Sheet (MSDS)** from our office or our website.

AGlen107/2/0711

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** 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 **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

BASF Australia Ltd

A.B.N. 62008437867

Head Office: 11 Stanton Road Seven Hills, NSW 2147

Ph. (02) 8811 4200

Newcastle (02) 4961 3819

Canberra (02) 6280 6010

Brisbane (07) 3633 9900

Townsville (07) 4774 7344

Melbourne (03) 9549 0300

Adelaide (08) 8139 7500

Perth (08) 9366 2600

Darwin (08) 8984 3269

Kalgoorlie 0417 772 355

BASF New Zealand Ltd

Head Office: 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233

BASF WEB SITES

www.basf-cc.com.au

www.basf-cc.co.nz

www.meyco.basf.com