

MasterGlenium SKY 8703

New generation superplasticising admixture for extended slump retention

Material Description

MasterGlenium SKY 8703 is a new generation superplasticiser with super retention technology. It contains polycarboxylate ether polymers and is specially formulated for ready-mix concrete where slump retention, high strength and durability are required in hot climates. The excellent dispersion effect makes **MasterGlenium SKY 8703** the ideal admixture for the ready-mix 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.

MasterGlenium SKY 8703 is free of chloride and complies with AS 1478.1 - 2000, and is also 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. **MasterGlenium SKY 8703** 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.

Areas of Application

- 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

Characteristics and Benefits

- High 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. No bleeding.
- Good workability - excellent surface appearance. Self-compacting concrete.
- Minimal bleed water - excellent concrete quality
- High elastic modulus - superior load bearing capacity

Application

MasterGlenium SKY 8703 is a ready-to-use admixture to be added to the concrete mix as a separate component. Optimal mixing water reduction is obtained if **MasterGlenium SKY 8703** 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 **MasterGlenium SKY 8703** depends on the mix design, ambient conditions and degree of water reduction and workability required. **MasterGlenium SKY 8703** is dispensed at a rate of 400ml to 1,200ml per 100 kg of cementitious material. Other dosages may also be used depending on the specific working conditions. Trial mixes should be made with job materials to determine the optimum dosage required for a specified job requirement.



MasterGlenium SKY 8703

New generation superplasticising admixture for extended slump retention

MasterGlenium SKY 8703 can be used in combination with other MasterGlenium admixtures 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 to determine the optimum dosage required for a specified job requirement.

MasterGlenium SKY 8703 is not compatible with MasterRheobuild admixtures.

Packaging

MasterGlenium SKY 8703 is available in bulk, 1000 litre pallecons and 20 litre cubes.

Storage & Shelf Life

Keep only in the original container in a cool, dry, well ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

MasterGlenium SKY 8703 has a shelf life of 12 months.

MasterGlenium SKY 8703 should be recirculated before use.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

Disclaimer

MasterGlenium-SKY8703-ANZ-V9-0623

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MB Solutions Australia Pty Ltd 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 and for ensuring that the application and use of the product is in accordance with the manufacturer's guidelines and recommendations.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by MB Solutions Australia Pty Ltd either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MB Solutions Australia Pty Ltd, are responsible for carrying out procedures appropriate to a specific application.

MB Solutions Australia Pty Ltd

ABN 69 634 934 419
Unit 102, 2 Burbank Place
Norwest NSW 2153

Freecall: 1300 227 300

www.master-builders-solutions.com/en-au

MB Solutions New Zealand Ltd

45C William Pickering Drive
Albany, Auckland
New Zealand

Phone: +64 9 414 7233

Emergency Advice:

1300 954 583 within Australia (24hr)
0800 001 607 within New Zealand

