

# MasterGlenium<sup>®</sup> SKY 8614

## Superplasticising and viscosity modifying admixture for High Flowable Concrete

### MATERIAL DESCRIPTION

**MasterGlenium SKY 8614** is a polycarboxylate ether (PCE) based superplasticizers to provide high flowable concrete for everyday use. The superplasticizer contains an essential component MasterMatrix<sup>®</sup> which is a breakthrough and revolutionary viscosity modifying admixture (VMA) from Master Builders Solutions.

**MasterGlenium SKY 8614** offers a quantum leap in concrete robustness allowing for flowability and stability of concrete at the same time. The self consolidating nature of high flowable concrete reduces significantly vibration making the process of concrete placement fast and effective.

**MasterGlenium SKY 8614** is free of added chloride and is compatible with all cements meeting ASTM standards.

### MECHANISM

**MasterGlenium SKY 8614** is built upon Master Builders Solutions - proprietary, intelligent (smart) polymers which interact among themselves and with water molecules to generate a water envelope that produces a highly stabilized cement paste. It is a unique 2-in-1 admixture with MasterMatrix inside based on the principle of intelligent, self organizing molecules.

A combination of viscosity modify agent with a tailor-made polycarboxylate ether, it improves cement dispersion to give a matrix-like structure which distributes the liquid cement evenly and enhances segregation resistance. **MasterGlenium SKY 8614** is able to substantially increase the plastic viscosity of concrete, while maintaining a limited increase in the yield value thereby reducing its sensitivity to water variations.

### FIELDS OF APPLICATION

- Ready-mix concrete and site mixing concrete
- Reinforced concrete and plain concrete
- Impermeable concrete
- Mass concrete
- Pumped concrete

### FEATURES AND BENEFITS

- **High water reduction** - High early and ultimate strengths. Low permeability, durability concrete.
- **High flowability** - Ease of placing and reduces significantly of compaction. No segregation and bleeding.
- **Superior slump retention** - Easy to produce and transport, reduced retreat rate.

- **Low shrinkage and creep** - Improved dimensional stability. Reduced risk of shrinkage.
- **Good cohesion** - Ease of pump. Reduce pumping costs.
- **Excellent workability** - Good surface appearance.
- **High elastic modulus** - Superior load bearing ability.

### APPLICATION

**MasterGlenium SKY 8614** can be added into water and wet concrete. Not recommended for direct addition into dry concrete.

### COMPATIBILITY

**MasterGlenium SKY 8614** has poor compatibility with naphthalene sulphonated based admixtures. For more information, please contact your local Master Builders Solutions representative.

### DOSAGE

Dosage rate for **MasterGlenium SKY 8614** depends on the mix design, ambient conditions and degree of water reduction and workability required. Generally, for concrete with water/cement ratios between 0.40 and 0.55, the typical dosage is 800–1500ml per 100kg of cementitious materials.

Other dosages may also be used depending on specific working conditions. Trial mixes should be made with job materials to determine the optimum dosage required for a specified job requirement. Higher dosage might be needed for higher percentage of clinker replacement or less reactive cement.

### PACKAGING

**MasterGlenium SKY 8614** is supplied in bulk delivery, IBC tank 1,000L and 205L sealed drums.

### SHELF LIFE

**MasterGlenium SKY 8614** has a shelf-life of 12 months if stored at temperatures above 5°C and in tightly sealed original packaging. Do not use compressed air and keep away from other admixtures, rains or any impurities.

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## PRECAUTIONS

Health: **MasterGlenium SKY 8614** does not contain any hazardous substances requiring labelling.

It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.

For detailed health, safety and environmental recommendations please refer to the product Material Safety Data Sheet.

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### STATEMENT OF RESPONSIBILITY

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

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