

MasterGlenium[®] SKY 8618

Superplasticising and viscosity modifying admixture for Smart Dynamic Concrete

DESCRIPTION

MasterGlenium SKY 8618 is a polycarboxylate ether (PCE) based superplasticizer to provide low fines self consolidating concrete for everyday use. The superplasticizer contains an essential component MasterMatrix which is a breakthrough and revolutionary viscosity modifying admixture (VMA) from Master Builders Solutions. This unique concept of low fines self consolidating concrete from Master Builders Solutions is known as Smart Dynamic Concrete (SDC).

MasterGlenium SKY 8618 offers a quantum leap in concrete robustness allowing for flowability and stability of concrete at the same time. The self consolidating nature of Smart Dynamic Concrete requires no or minimal vibration making the process of concrete placement fast and effective. **MasterGlenium SKY 8618** is free of added chloride and is compatible with all cements meeting ASTM standards.

MECHANISM

MasterGlenium SKY 8618 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 modifying agent with a tailor-made polycarboxylate ether, **MasterGlenium SKY 8618** improves cement dispersion to give a matrix-like structure which distributes the liquid cement evenly and enhances segregation resistance. **MasterGlenium SKY 8618** is able to improve the plastic viscosity of concrete, while maintaining the yield value thereby reducing its sensitivity to water variation.

RECOMMENDED USES

- Ready-mix concrete and site mixing concrete
- Reinforced concrete and plain concrete
- Impermeable concrete
- Mass concrete
- Pumped concrete
- Self compacting concrete is required.

FEATURES AND BENEFITS

- **High water reduction** – High early and ultimate strengths. Low permeability, high durability concrete.
- **High flowability** – Ease of placing and compaction. No segregation and bleeding.
- **Superior slump retention** – Easy to produce and transport, reduced retreat rate.
- **Low shrinkage and creep** – Improve 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 8618 can be added into water and wet concrete. Not recommended for direct addition into dry concrete.

DOSAGE

Dosage rate for **MasterGlenium SKY 8618** depends on the mix design, ambient conditions and degree of water reduction and workability required. The typical dosage is 800-1800ml 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.

MasterGlenium SKY 8618 can be used in combination with other MasterGlenium admixtures to achieve longer slump retention or specific working requirements. The dosage employed in such cases may be different from the above recommendation. Trial mix should be performed with job materials to determine the optimum dosage required.

Please consult with Master Builders Solutions personnel on the recommended MasterGlenium product combination.

MasterGlenium SKY 8618 is not compatible with MasterRheobuild admixtures.

PACKAGING

MasterGlenium SKY 8618 is available in bulk and 205L drums.

MasterGlenium® SKY 8618

SHELF LIFE

MasterGlenium SKY 8618 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

Health: MasterGlenium SKY 8618 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 commendations, please consult and follow all instructions on 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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