

MasterGlenium[®] SKY 504AE

A latest generation high-performance polycarboxylate ether (PCE) superplasticizer for the Readymix industry when extended workability retention is required

DESCRIPTION

MasterGlenium SKY 504AE consists of a blend of innovative patented latest generation modified polycarboxylate ether polymers. The particular molecular configuration allows

MasterGlenium SKY 504AE to firstly give a high level of water reduction and secondly extended workability retention up to several hours. The polymer structure of

MasterGlenium SKY 504AE is also specially designed to improve rheology of concrete, making it flowable and less viscous even at very low water/cement ratios. Robustness is a distinctive feature of concrete produced with **MasterGlenium SKY 504AE**.

TYPICAL APPLICATIONS

MasterGlenium SKY 504AE is suitable for producing highly-fluid concrete for piling and diaphragm wall construction. Concrete remains stable without segregation or bleed at low water cement ratios with high ultimate strength. **MasterGlenium SKY 504AE** may be used in combination with **MasterMatrix 110** to improve mix stability such as when producing Self Compacting Concrete (SCC) or Smart Dynamic Concrete (SDC) that is placed without the use of vibration giving economic, ecological and ergonomic concrete production.

ADVANTAGES

The ready-mix producer:

- Capability of delivering high performance concrete to the job site
- Production of concrete with low water cement ratios with excellent workability retention properties
- Single product for many application needs

The contractor / applicator:

- Easier placing and faster strength development
- Extended working live for mass concrete of were placing is slow or delayed
- Improved concrete surfaces finish

The engineer:

- Insurance that concrete meets original specification
- High quality durable concrete

PACKAGING

MasterGlenium SKY 504AE is available in 210 L drums or in bulk.

STANDARDS

MasterGlenium SKY 504AE meets the requirements of EN 934-2 and ASTM C494 Type G.

TYPICAL PROPERTIES*

Appearance and Form	Clear to light brown colored liquid
Specific gravity @ 25°C	1.090
pH-value @ 25°C	4.0 – 7.0
Chloride ion content	"Chloride Free" to EN 934

APPLICATION GUIDELINES

MasterGlenium SKY 504AE is a ready to use liquid admixture that is added to the concrete at the time of batching.

The maximum effect is achieved when the **MasterGlenium SKY 504AE** is added after the addition of 70% of the water.

MasterGlenium SKY 504AE must not be added to the dry materials.

Thorough mixing is essential and a minimum mixing cycle, after the addition of the **MasterGlenium SKY 504AE** of 60 seconds for forced action mixers is recommended.

The recommended dosage rate is 0.5 to 2.5 L/100kg of cementitious material.

Other dosages may be used in special cases according to specific production conditions. In this case please consult our Technical Services Department.

MasterGlenium® SKY 504AE

MIXING

MasterGlenium SKY 504AE is compatible and recommended for use with:

- **MasterMatrix 110** to modify the viscosity of SCC.
- **MasterAir**, air entraining admixture to improve freeze-thaw resistance.
- **MasterFinish**, demoulding agent for easy formwork removal and improved finish.
- **MasterKure**, user friendly curing compound for highly efficient water retention.

MasterGlenium SKY 504AE is suitable for mixes containing all types of Portland cement and cementitious materials as follows:

- Microsilica (silica fume)
- fly ash (PFA)
- ground granulated blastfurnace slag GGBS

Note: **MasterGlenium SKY 504AE** is not compatible with **MasterRheobuild** superplasticizers.

STORAGE AND SHELF LIFE

MasterGlenium SKY 504AE should be stored above 0°C In closed containers or storage tanks to protect from evaporation and extreme temperatures. The shelf life is 12 months when stored as above.

The occurrence of a surface layer with **MasterGlenium SKY 504AE** is normal and will have no effect on the performance of the product.

HEALTH AND SAFETY

MasterGlenium SKY 504AE contains no hazardous substances requiring labelling. For further information refer to the Material Safety Data Sheet.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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STATEMENT OF RESPONSIBILITY

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NOTE

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