

MasterGlenium[®] SKY 8341

High-performance super plasticiser with super slump retention for ready mix concrete

DESCRIPTION

MasterGlenium SKY 8341 is the superplasticiser based on second generation polycarboxylic ether polymers, developed using nano-technology. The product has been primarily developed for applications in high performance ready-mix concrete to facilitate high early strength gains with super slump retention.

MasterGlenium SKY 8341 is free of chloride & low alkali. It is compatible with all types of cements.

RECOMMENDED USES

- **MasterGlenium SKY 8341** is used for the production of high quality ready-mix concrete.
- **MasterGlenium SKY 8341** may be used in combination with MasterMatrix 2 (formerly known as GLENIUM STREAM 2) for producing Rheodynamic Concrete, capable of self-compaction, even in the presence of dense reinforcement.
- Concrete containing pozzolans such as microsilica, GGBFS, PFA including high volume fly ash concrete

FEATURES AND BENEFITS

- Marked increase in early & ultimate strengths
- Total control on the slump at the time of placing
- elimination of vibration and reduced labour cost in placing by implementing self compacting concrete
- improved adhesion to reinforcing and stressing steel
- better resistance to carbonation and other aggressive atmospheric conditions
- lower permeability - increased durability
- reduced shrinkage and creep

sureTEC – Super Retention Technology:

sureTEC stands for Super Retention Technology. It is a concrete admixture technology that brings benefits to all concrete producers in terms of slump retention and early strength development. It assures concrete workability at the time of placing. With application of sureTEC, concrete producers gain control over the workability of concrete at the time of placing – far beyond previously known levels. No matter if low workability or high performance self compacting concrete, the placing workability remain unchanged from batch to batch. As a result concrete producers are enabled to provide a specified workability of concrete consistently, even if hot weather or traffic conditions or other factors make it difficult to

estimate the time window between batching and placing. sureTEC also provides value to the end customers. The excellence in terms of quality control of concrete at the same time assures consistency of workmanship, a decisive prerequisite for a long life-cycle of a concrete structure.

PERFORMANCE TEST DATA

Aspect	Light brown liquid
Relative Density	1.07 ± 0.02 at 25°C
pH	≥6
Chloride ion content	< 0.2%

TEST CERTIFICATION/APPROVALS

- ASTM C494 Types G
- EN 934-2 T11.1/11.2
- IS 9103

DOSAGE

Optimum dosage of **MasterGlenium SKY 8341** should be determined with trial mixes. As a guide, a dosage range of 500 ml to 1200ml per 100kg of cementitious material is normally recommended. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local Master Builders Solutions representative.

For addition information on **MasterGlenium SKY 8341** admixture or on its use in developing concrete mixes with special performance characteristics, contact your local Master Builders Solutions representative.

Effects of over dosage

A severe over-dosage of **MasterGlenium SKY 8341** can result in the following:

- Extension of initial and final set
- Bleed/segregation of mix, quick loss of workability
- Increased plastic shrinkage

A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on form work, and stripping times should be monitored.

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In the event of over dosage, consult your local Master Builders Solutions representative immediately.

APPLICATION

MasterGlenium SKY 8341 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of **MasterGlenium SKY 8341** to dry aggregate or cement is not recommended. Automatic dispensers are available.

Thorough mixing is essential and a minimum mixing cycle, after the addition of the **MasterGlenium SKY 8341**, of 60 seconds for forced action mixers is recommended.

SUGGESTED SPECIFICATION

The super-slump retaining hyperplasticiser shall be **MasterGlenium SKY 8341**, high range water reducing, Superplasticiser based on polycarboxylic ether formulation. The product shall have specific gravity of 1.07 & solid contents not less than 25% by weight. The product shall comply with ASTM C494 Type G and shall be free of lignosulphonates, naphthalene salts and melamine formaldehyde when subjected to IR Spectra.

COMPATIBILITY

MasterGlenium SKY 8341 is compatible with most of the products under the MasterPozzolith & MasterSet series (formerly known as POZZOLITH) including MasterSet RT 55. Use MasterMatrix 2 (formerly known as Glenium Stream 2) as viscosity modifying agent in self compacting concrete. It must not be used in conjunction with any other admixture unless prior approval is received from Master Builders Solutions Technical Services Department.

CORROSIVITY – NON CORROSIVE

MasterGlenium SKY 8341 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of **MasterGlenium SKY 8341** admixture. In all concrete application, **MasterGlenium SKY 8341** admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

WORKABILITY

MasterGlenium SKY 8341 ensures that rheoplastic concrete remains workable in excess of 120 minutes at +25°C. Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability.

It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

PACKAGING

MasterGlenium SKY 8341 is supplied in 245 kg drums or in bulk on request.

STORAGE /SHELF LIFE

MasterGlenium SKY 8341 must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Master Builders Solutions representative.

PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

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MasterGlenium® SKY 8341

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**STATEMENT OF
RESPONSIBILITY
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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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