

# MasterGlenium ACE 8710

High early strength, high range water-reducing admixture with improved slump retention and workability

## Material Description

**MasterGlenium ACE 8710** is an innovative second generation polycarboxylic ether polymer hyperplasticiser with high early strength, improved slump retention and lower paste viscosity, especially at lower w/c ratios and high binder contents.

The particular molecular configuration of **MasterGlenium ACE 8710** accelerates the cement hydration. Rapid absorption of the molecule onto the cement particles, combined with an efficient dispersion effect maintains workability yet exposes increased surface area of the cement grains to react with water. As a result of this effect, it is possible to obtain earlier development of the heat of hydration, rapid development of the hydration products and, as a consequence, higher strengths at a very early age.

**MasterGlenium ACE 8710** conforms to AS 1478 Type HWR.

## Characteristics and Benefits

- **MasterGlenium ACE 8710** is suitable for making precast concrete elements at all workability's including Rheoplastic concrete and Super Workable concrete having a flowable to fluid consistence, improved slump retention no segregation, a low water binder ratio, and, consequently, high early and long term strengths.
- **MasterGlenium ACE 8710** may be used in combination with other Master Builders Solutions admixtures for producing concrete of varying consistencies or performance requirements including Super Workable Concrete capable of self-consolidation, even in the presence of dense reinforcement, without the aid of vibration, for making precast elements.
- **MasterGlenium ACE 8710** performs best when the concrete temperature is at 20°C or above.

## Characteristics and Benefits

**MasterGlenium ACE 8710** offers the following benefits for the precast concrete industry to:

- Produce Rheoplastic and Rheodynamic (SWC) concrete having a low water binder ratio
- Superior slump retention over conventional admixtures`
- Optimise curing cycles by reducing curing time or curing temperature
- Eliminate the energy required for placing, compacting
- Increase productivity/reduction in cycle times
- Improve surface appearance
- Produce durable precast concrete elements
- Improved engineering properties, compared to traditional superplasticisers, such as early and ultimate compressive and flexural strengths, shrinkage and permeability

## Properties

Appearance	Light brown to brown**
SG @ 23°C	1.080 ± 0.02
pH-value	8.00 ± 1.0
Chloride content	No added chlorides

\*\* Color may vary slightly. However, this does not change the efficacy and product performance.

## Dosage

The normally recommended dosage rate is 600ml to 1200ml per 100kg of cementitious material (binder) and any material passing the 0.15mm sieve (fines of aggregates or fillers) used for producing conventional, Rheoplastic and Rheodynamic or Super Workable concrete. Other dosages outside these ranges may be used in special cases according to specific job site conditions. In this case consult your Master Builders Solutions Technical Sales Representative. It is recommended that trials be conducted with the actual materials to be used and at the specified **MasterGlenium ACE 8710** dose rates to verify performance before proceeding to application.



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## Application

**MasterGlenium ACE 8710** is a liquid admixture normally added to concrete during the mixing process either at the batch plant or on site.

At the batch plant, **MasterGlenium ACE 8710** may be added with the initial batch water, however, the best results are obtained when the admixture is added after at least 70% of the added water and after all the other components are already in the mixer. When added at site, mix for a minimum of 5 minutes before discharging. Avoid adding **MasterGlenium ACE 8710** to the dry materials. Concrete which has lost slump may be re-tempered with **MasterGlenium ACE 8710** provided initial setting has not started.

## Compatibility

**MasterGlenium ACE 8710** is compatible with most Master Builders Solutions admixtures providing they are added separately to the mix.

**MasterGlenium ACE 8710** is recommended for use with:

- MasterMatrix admixtures to produce Rheodynamic and Super Workable concrete.
- MasterLife for producing shrinkage compensated concrete.

**MasterGlenium ACE 8710** is NOT compatible with admixtures containing Sulphonated Naphthalene Formaldehyde Condensate such as MasterRheobuild 1000 NT.

**MasterGlenium ACE 8710** may have a synergistic effect on AEA's significantly increasing the amount of entrained air. Trials are recommended before using this combination.

It is recommended that any admixture or combination of admixtures is trialed with the particular materials and mix design to be used to verify concrete performance before commencing normal production.

For further information, consult your Master Builders Solutions Technical Sales Representative.

## Packaging

**MasterGlenium ACE 8710** is available in bulk, 1000 litre IBCs and 20 litre cubes.

## Storage & Shelf Life

Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight. Store protected against freezing.

**MasterGlenium ACE 8710** has a shelf life of 12 months when stored as recommended.

**MasterGlenium ACE 8710** 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.

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## Disclaimer

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