

## MasterGlenium ACE 8380 (Formerly known as Glenium ACE 80)

A new generation polycarboxylic ether superplasticiser admixture developed for the precast market

### DESCRIPTION

**MasterGlenium ACE 8380**, an essential component of ZERO ENERGY SYSTEM, is an innovative second generation of polycarboxylic ether polymers superplasticiser. The particular molecular configuration of **MasterGlenium ACE 8380** accelerates the cement hydration. Rapid absorption of the molecule onto the cement particles, combined with an efficient dispersion effect, exposes increased surface of the cement grains to react with water.

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**MasterGlenium ACE 8380** is compatible with all Portland cements meeting recognised international standards and is free from chlorides and has been formulated to comply with EN 934-2 and ASTM C494 for Types A and F admixtures.

ZERO ENERGY SYSTEM is based on a combination of the avant-garde admixture **MasterGlenium ACE 8380** and the innovative technology of rheodynamic concrete. The ZERO ENERGY SYSTEM has been developed to help the precast concrete producer to rationalise his production process and save on energy costs combined with improved quality of the product and the working conditions.

### RECOMMENDED USES

**MasterGlenium ACE 8380** is suitable for making precast concrete elements with Rheoplastic concrete having fluid consistence, no segregation and low water cement ratio and, consequently, high early and long term strengths.

**MasterGlenium ACE 8380** may be used in combination with GLENIUM STREAM admixtures for producing rheodynamic concrete, capable of self-compaction, even in the presence of dense reinforcement, without the aid of vibration, for making precast elements.

**MasterGlenium ACE 8380** is recommended for use at ambient temperature above 15°C.

#### Compatibility

**MasterGlenium ACE 8380** is compatible and recommended for use with:

- MasterMatrix admixtures to produce rheodynamic concrete
- MasterAir, air entraining admixture, to improve

freeze thaw resistance (exposure class XF1 to XF4, EN 206-1)

- MasterRoc MS 610, silica fume, for high performance concrete and increased durability in chemical aggressive environments (exposure class XA1 to XA3, EN 206-1)
- MasterLife SF 100 for producing shrinkage compensated concrete
- MasterKure curing compound for protection of fresh concrete to prevent rapid evaporation of water.

Note : **MasterGlenium ACE 8380** is not compatible with the MasterRheobuild superplasticisers.

### FEATURES AND BENEFITS

**MasterGlenium ACE 8380** offers the following for the precast concrete industry to:

- produce rheoplastic and rheodynamic concrete having a low water cement ratio
- optimise the curing cycles by reducing curing time or curing temperature
- eliminate the heat curing
- eliminate the energy required for placing and compaction and curing (ZERO ENERGY)
- Increase productivity
- improve surface appearance
- produce durable precast concrete elements as per EN 206-1
- as compared to the traditional superplasticisers, the engineering properties such as early and ultimate compressive and flexural strengths, bond to steel, modulus of elasticity, shrinkage, creep, and impermeability are improved.

### DOSAGE

The recommended dosage rate is 0.4 to 1.0 litres per 100 kg of the binder and any material (fines or fillers) passing the 0.1 mm sieve used for producing rheodynamic concrete. Other dosages may be used in special cases according to specific job site conditions, please consult local Master Builders Solutions representatives.

### APPLICATION

#### Dispensing

**MasterGlenium ACE 8380** is a liquid admixture to be added to the concrete during the mixing process. The best results are obtained when the admixture is added after all the other components are already in the mixer and after the addition of at least 80% of the total water. The water content is adjusted to obtain the desired consistence or workability.

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### PACKAGING

MasterGlenium ACE 8380 is available in 205L drums or in bulk delivery.

### STORAGE /SHELF LIFE

MasterGlenium ACE 8380 can be stored for 12 months if stored at temperatures above 5°C, in tightly sealed original drums.  
If found to be frozen, thaw it, bring the temperature of the product to 30 °C and reconstitute by stirring.

### PRECAUTIONS

**Health:** MasterGlenium ACE 8380 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 consult and follow all Instructions in the product Material Safety Data Sheet.

MasterGlenium ACE 8380v1.0813

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