

GLENIUM[®] ACE 80

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

DESCRIPTION

GLENIUM ACE 80, an essential component of ZERO ENERGY SYSTEM, is an innovative second generation of polycarboxylic ether polymers superplasticiser. The particular molecular configuration of **GLENIUM ACE 80** 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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GLENIUM ACE 80 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 **GLENIUM ACE 80** 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 FOR

GLENIUM ACE 80 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.

GLENIUM ACE 80 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.

GLENIUM ACE 80 is recommended for use at ambient temperature above 15°C.

Compatibility

GLENIUM ACE 80 is compatible and recommended for use with:

- GLENIUM stream admixtures to produce rheodynamic concrete

- MICRO AIR, air entraining admixture, to improve freeze thaw resistance (exposure class XF1 to XF4, EN 206-1)
- MEYCO MS 610, silica fume, for high performance concrete and increased durability in chemical aggressive environments (exposure class XA1 to XA3, EN 206-1)
- RHEOMAC 100 for producing shrinkage compensated concrete
- MASTERKURE curing compound for protection of fresh concrete to prevent rapid evaporation of water.

Note : **GLENIUM ACE 80** is not compatible with the RHEOBUILD superplasticisers.

FEATURES AND BENEFITS

GLENIUM ACE 80 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.

APPLICATION

Dispensing

GLENIUM ACE 80 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.

BASF Construction Chemicals offices in ASEAN

Singapore

Tel :+65-6861-6766
Fax :+65-6861-3186

Malaysia

Tel :+60-3-5628-3388
Fax :+60-3-7847-6781

Indonesia

Tel :+62-21-893-4339
Fax :+62-21-893-4342

Thailand

Tel :+66-2204-9427
Fax :+66-2664-9267

Vietnam

Tel :+84-650-743-100
Fax :+84-650-743-200

Philippines

Tel : +63-2-889-4321
Fax : +63-2-889-4361



The Chemical Company

GLENIUM[®] ACE 80

DOSAGE

The recommended dosage rate is 0.5 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 BASF Construction Chemicals representatives.

PACKAGING

GLENIUM ACE 80 is available in 205L drums or in bulk delivery.

SHELF LIFE

GLENIUM ACE 80 can be stored for 6 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 : **GLENIUM ACE 80** 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.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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

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