BASF
The Chemical Company

GLENIUM® SP8HR

New generation superplasticising admixture developed for hot climates

DESCRIPTION

GLENIUM SP8HR is a new generation superplasticiser developed primarily for use in hot climates. It contains polycarboxylate ether polymers and is specially formulated to give exceptionally high water reduction and significantly reduced slump loss.

GLENIUM SP8HR is free of chloride and has been formulated to comply with ASTM C 494 for Type A & F admixtures, BS5075 for high range water reducing admixtures and JIA A6204 concrete. It is compatible with all Portland cements that meet recognised international standards.

Chemistry and Mechanism of Action

GLENIUM SP8HR is differentiated from conventional superplasticisers in that it is based on a unique polycarboxylate ether polymer with long lateral chains. This greatly improves cement dispersion. In addition, these polymers have been synthesised with "time release" technology to extend slump life without retardation of set time. This provides long slump retention and excellent early strengths. At the start of the mixing process the same electrostatic dispersion occurs as described previously, but the presence of the lateral chains, linked to the polymer backbone, generate a steric hindrance which stabilises the cement particles capacity to separate and disperse. This mechanism provides flowable concrete with greatly reduced water demand.

FIELDS OF APPLICATION

- concrete with less water content than with conventional admixtures
- faster mixing logistics during large jobs
- high flowability concrete
- highly durable concrete
- high strength concrete
- ready-mixed concrete
- mass concrete
- long distance transport
- pumped concrete
- hot weather concreting
- self compacting concrete

Compatibility

Do not use another water reducing and/or superplasticisers in the mix with **GLENIUM SP8HR**. **GLENIUM SP8HR** is compatible with selected BASF Construction Chemicals air-entraining agents. Consult your local BASF Construction Chemicals representatives for advice.

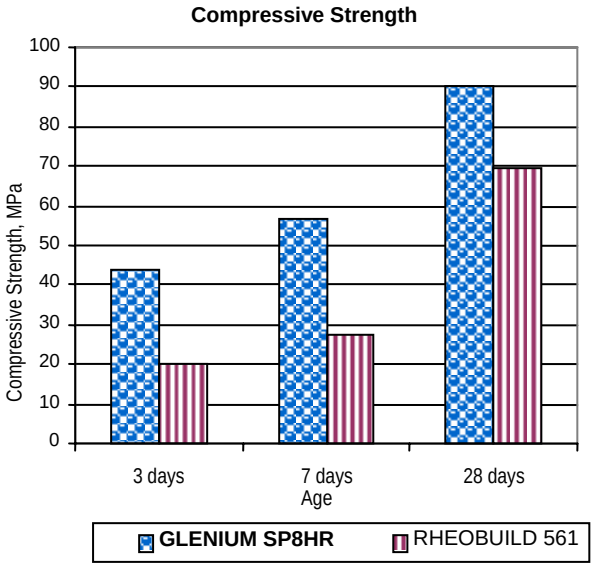
FEATURES AND BENEFITS

High water reduction	High early and ultimate strengths. Low permeability, high durability concrete.
High flowability	Ease of placing and compaction. No segregation.
Superior slump retention	No retempering. Ease of delivery to point of placement.
Low shrinkage and creep	Improves dimensional stability. Reduces risk of cracks.
Good cohesion	Ease of pumping. No bleeding.
Good workability	Excellent surface appearance. Self compacting concrete.
Minimal bleed water	Excellent concrete quality. Significantly less than BNS based products.
High elastic modulus	Superior load bearing capacity.

TYPICAL PERFORMANCE DATA

GLENIUM SP8HR improves early and final strengths. It also improves slump retention and workability of the concrete more than traditional superplasticisers.

Example of test results achieved with **GLENIUM SP8HR**



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GLENIUM® SP8HR

Mix Design:

Cement Content	450 kg/m^3
Fine Aggregate	844 kg/m^3
Coarse Aggregate	860 kg/m^3
Water/cement Ratio	0.40

APPLICATION

Dispensing

GLENIUM SP8HR can be added into the mixing water or can be added to the wet concrete after the mixing water has been added. The addition of **GLENIUM SP8HR** to a dry concrete mix is not recommended. A separate dispenser and feed line must be used.

DOSAGE

Dosage of **GLENIUM SP8HR** depends on the mix design, ambient conditions and degree of water reduction and workability required. **GLENIUM SP8HR** is dispensed at a rate of 0.8 – 4 L per 100 kg of cementitious material. Other dosages may also be used depending on the specific working conditions.

Trial mixes should be made with job materials to determine the optimum dosage required for a specified job requirement.

PACKAGING

GLENIUM SP8HR is available in 205L drums or bulk delivery.

SHELF LIFE

GLENIUM SP8HR can be stored for 6 months if stored at temperatures above 0ºC, in tightly sealed original drums. If found to be frozen, thaw it and reconstitute by stirring.

SHELF LIFE

Health : GLENIUM SP8HR 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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