



The Chemical Company

RHEOPLUS™ 50 SURETEC

High performance superplasticiser with super retention technology for high quality concrete

DESCRIPTION

RHEOPLUS 50 SURETEC is a super-plasticizer of a new generation based on modified polycarboxylic ether polymers with super retention technology. It is designed for use in high quality ready mixed concrete, when superior performance is required, even under difficult conditions.

RHEOPLUS 50 SURETEC combines exceptional long slump life with normal setting times. Its application is especially beneficial when used in hot climate or with demanding mix designs.

RHEOPLUS 50 SURETEC does not contain added chloride and conforms to chloride ion limits required by concrete industry standards.

Chemistry

RHEOPLUS 50 SURETEC is universally applicable and provides improved rheological properties for a wide-range of concrete mixes. Performance of **RHEOPLUS 50 SURETEC** in concrete is superior to conventional superplasticisers due to its unique polycarboxylate ether design.

Conventional superplasticisers, such as those based on sulphonated melamine and naphthalene formaldehyde condensates, at the same time of mixing, become absorbed onto the surface of the cement particles. This absorption takes place at a very early stage in the hydration process. The sulphonic groups of the polymer chains increase the negative charge on the surface of the cement particle and dispersion of the cement occurs by electrostatic repulsion.

Contrary to conventional superplasticisers the dispersion mechanism of **RHEOPLUS 50 SURETEC** is not only based on electrostatic repulsion but in addition also on steric hindrances. **RHEOPLUS 50 SURETEC** achieves outstanding water reduction and workability retention without retardation of setting time.

FIELDS OF APPLICATION

RHEOPLUS 50 SURETEC is recommended for:

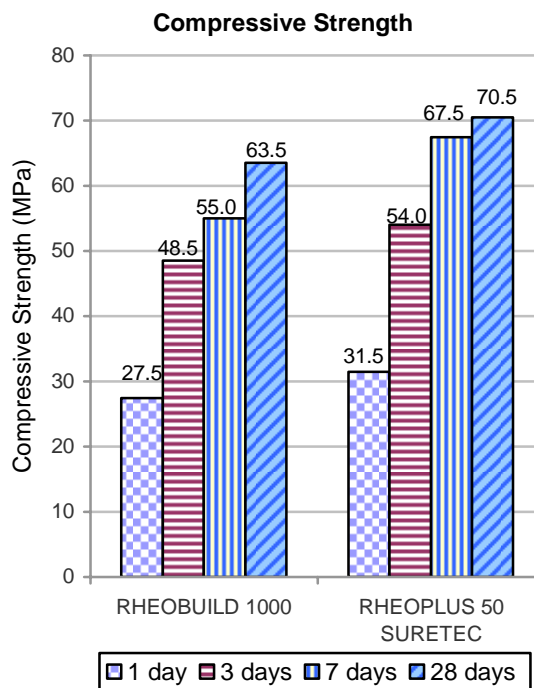
- Ready mixed concrete with the highest requirements on durability and quality
- Construction sites which need reliable workability at elevated temperatures
- Demanding mix designs (e.g. fine sand)
- Pumped concrete

- Concrete mixes at various w/c ratios
- Suitable for a broad range and different types of cement.
- Precast concrete

FEATURES AND BENEFITS

- Exceptional slump retention without retardation** No retempering. Ease of delivery to point of placement. High early strength.
- High water reduction** Low permeability, high durability concrete.
- High flowability** Extremely strong plasticizing properties. Less vibration required. Ease of placing and compaction. No segregation.
- Low shrinkage and creep** Improves dimensional stability. Reduces risk of cracks.
- Excellent cohesiveness** Ease of pumping. No bleeding.
- Superior finishing** Fair-faced concrete.

TYPICAL PERFORMANCE DATA



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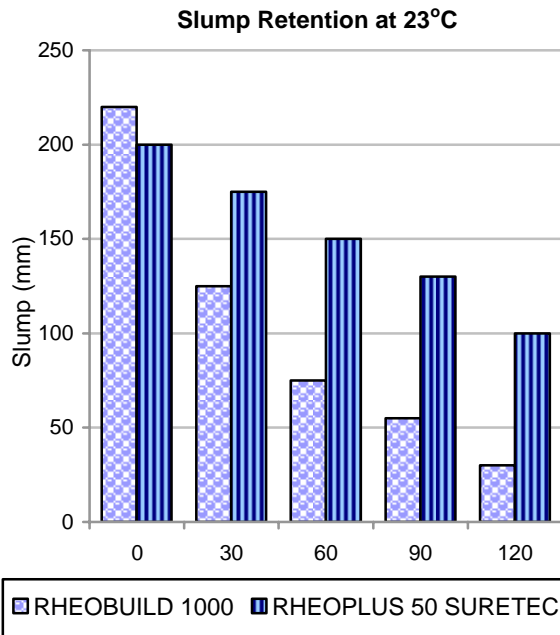
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RHEOPLUS™ 50 SURETEC

RHEOPLUS 50 SURETEC improves early and final strength considerably. RHEOPLUS 50 SURETEC also improves the slump retention and workability of concrete more than traditional superplasticisers.

Cement content 420kg, W/C = 0.38



APPLICATION

Dispensing

RHEOPLUS 50 SURETEC is a ready-to-use admixture to be added to the concrete mix as a separate component.

Optimal mixing water reduction is obtained if RHEOPLUS 50 SURETEC is poured into the concrete

mix right after the addition of the first 50-70% of the mixing water. Avoid adding the admixture to the dry aggregates. A separate dispenser and feed line must be used.

DOSAGE

Dosage depends upon the mix design, the ambient conditions and the degree of water reduction and workability required. Typical dosage used is 0.8 – 1.6 L per 100 kg of cementitious materials.

Site trials are recommended to determine the actual dosage required.

PACKAGING

RHEOPLUS 50 SURETEC is available in bulk and 205L drums.

SHELF LIFE

RHEOPLUS 50 SURETEC 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 and reconstitute by stirring.

PRECAUTIONS

Health : RHEOPLUS 50 SURETEC 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 on 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.

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