

QUANTEC® SE-509

Admixture for low workability and pre-stressed concrete

Product Description

QUANTEC SE-509 is a specific formula to be used in concrete mixes which have very low water content, and where accuracy and consistency in the manufacturing process are required with excellent dimensional stability, surface finish and normal structure.

QUANTEC SE-509 is based on a blend of carboxylated polyethers and synthetic surfactants, for use in block mix concretes, and low slump concrete systems involving vibro-compression and instant demoulding.

QUANTEC SE-509 increases mixture performances without cohesion losses, providing full cement hydration and strength development. The use of admixture can represent up to 20% strength increase at the same cement content.

Typical Properties

Appearance	Amber Liquid
Specific Gravity (20°C)	1.05
Alkali Content (eq.Na ₂ O)	0.50%
Chloride Content	Minimal in semi-dry
Air Entrainment	1.0%
Freezing Point	0°C

Method Of Use

QUANTEC SE-509 is supplied ready for use.

QUANTEC SE-509 should be added in its supplied form with the batching water, after the addition of the cement.

QUANTEC SE-509 may be used in all zero or low slump concretes, including extruded concrete, where improved compaction and reduced efflorescence are beneficial.

Compatibility

With Cements :

QUANTEC SE-509 can be used with all types of Portland cement, including cement replacement materials.

For use with special cements we recommend that you consult GCP Applied Technologies.

Advantages

- Particularly suitable for extruded concrete, for example, hollowcore flooring
- Increased productivity resulting from improved concrete lubrication
- Improved texture
- Consistently better surface finish with reduced defects and pinholes
- Higher cohesion of the concrete mix
- Improved handleability, workability and compaction
- Better process dimensional stability and green strength for early handling
- 20 – 40% Improved strength
- Cracking reduction
- Overall lower concrete products wasted
- Reduced shrinkage



With Other Admixtures:

QUANTEC SE-509 should not under any circumstances be premixed with other admixtures. The performance of the product will be affected by the presence of other chemical admixtures.

We recommend that all admixtures be added separately into the mix.

Effects of Overdosing

The effect of overdosing QUANTEC SE-509 is a function of the degree of overdose.

Overdosing in semi-dry mixes will yield a more plastic mixture, and problems may be experienced with edge slumping of cast masonry units. A reduction in compressive strength may also be noticed.

Any situation where an overdose is suspected, careful inspection of the concrete in its plastic state should be conducted. Particular attention to consistency and cohesiveness prior to a decision on the suitability of the concrete for the particular application in question.

Addition Rates

Range	400 ml -700 ml per 100 kg cement
	0.40% -0.70% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.50-0.60% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

QUANTEC SE-509 is best assessed after preliminary tests in process using the actual mix constituents to determine the optimum dosage.

Dispensing

It is preferable that the QUANTEC SE-509 should be introduced into the mixer by means of automatic dispensing equipment.

Equipment or advice on dispensing can be obtained from GCP.

Health and Safety

For further information on Health and Safety matters regarding this product we recommend that you consult the relevant Material Safety Data Sheet from GCP.

In line with general chemical handling precautions avoid contact with skin or eyes and protective gloves/goggles should be worn.

Packaging

QUANTEC SE-509 is supplied in 15 and 205 non returnable drums and 1,000 litre totes.

Alternatively, bulk deliveries can be arranged.

Storage

QUANTEC SE-509 should be stored away from extremes of temperature and then protected from frost. The product should be kept out of direct sunlight in shaded storage at all times.

Storage Life in Manufacturer 's Drums :

12 months from date of manufacture.

Storage Life in Bulk Storage:

12 months from date of delivery.

Technical Service

Our Technical Service department of GCP Applied Technologies is available to assist you in the correct use of our performance chemicals.

gcpat.com | Customer Service: Tel: 01925 855330 Fax: 01925 855350

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