

OPTEC[®] EC-900

High Performance Admixture for Low Cementitious Semi-Dry Applications

Product Description

OPTEC[®] EC-900 is a high performance admixture designed to allow the production of semi-dry mortar or concrete mixes which have greatly increased quantity of SCM and/or other powder components while maintaining easy placement and compaction characteristics and without reduction in mechanical and physical properties.

OPTEC[®] EC-900 is formulated for use with rapid de-mould mix processes where primary efflorescence is a concern and gives optimum workability and compaction under intense vibration, while maintaining mix cohesion and dimensional stability of the de-moulded product. Its powerful action enables the water content of the mix to be optimised, improving vibration/compaction in block, brick and tile manufacture processes and ensures that the cement hydration potential and strength are maximised. This results in a denser, stronger unit with a more uniform texture, and a smoother cement rich appearance.

OPTEC[®] EC-900 can be used over a wide dosage range to produce semi-dry concrete mixes that have excellent plastic and hardened properties.

OPTEC[®] EC-900 is based on a blend of modified synthetic hydroxylated polymers and is manufactured under controlled conditions to give a high-quality consistent product.

Advantages

- Cement economies of more than 25% are possible while maintaining/ improving strength
- Excellent efflorescence control
- Reduced curing period and/or steam curing costs
- Mixes are more responsive to vibration
- Faster production cycle
- Improved surface finish and texture
- Sharper edge detail

Typical Properties

OPTEC [®] EC-900	
Appearance	Straw coloured liquid
Specific Gravity (20 °C)	1.055
Air Entrainment	Minimal in semi-dry mixes
Freezing Point	0°C

Typical Uses

- Concrete Block Paver production
- Dense Concrete Blocks using natural/ lightweight or artificial aggregates, in both static/mobile production systems – air/steam cured or autoclaved
- Semi-Dry concrete pipe or brick production
- Low workability cementitious systems involving vibration intensive / press production methods

Method Of Use

OPTEC® EC-900 is supplied ready for use. When producing semidry mixes it should be added in its supplied form with part of the batching water, after the addition of the cementitious component. The effects of overdosing OPTEC® EC-900 are a function of the degree of overdose. Depending on the extent of the overdose, an increase in the water requirement of the mix will occur, and the mix may become difficult to place and compact efficiently.

Addition Rates

Range	500 – 1500 ml per 100 kg cementitious / powder
	0.50% – 1.50% (v/w) by wt. of cement
For best results it is recommended that OPTEC® EC-900 performance is first assessed in preliminary tests using the actual mix constituents to determine the optimum dosage.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

In any situation where overdosing is suspected, a careful inspection of the concrete in its plastic state should be conducted. Particular attention should be paid to consistency and ease of compaction, prior to a decision on the suitability of the concrete for the particular application in question.

Compatibility

With Cements :

OPTEC® EC-900 can be used with all types of cements, including limestone cements. It is also effective in concretes containing fly ash or ground granulated blastfurnace slag, however some reduction in dosage rate may be necessary. For use with special cements we recommend you to contact GCP Applied Technologies.

With Other Admixtures:

OPTEC® EC-900 should not be premixed under any circumstances with other admixtures. The performance of the product will be affected by the presence of other chemicals and we recommend that GCP be consulted in such circumstances.

Dispensing

It is preferable that OPTEC® EC-900 should be introduced into the mixer by means of independent automatic dispensing equipment.

Packaging

OPTEC® EC-900 is supplied in 1,000 litre totes and bulk deliveries can be arranged.

Storage

OPTEC® EC-900 should preferably be stored away from extremes of cold or heat. The product should be kept 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.

Health and Safety

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

Technical Service

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

gcpat.uk | United Kingdom customer service: +44 (0) 1925 855330 Fax: 01925 855350

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

OPTEC is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2020 GCP Applied Technologies Inc. All rights reserved.

GCP Applied Technologies (UK) Ltd, Gate St, Dukinfield SK16 4RU.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Applied Technologies (UK) Ltd, 487-488 Ipswich Road, Slough, SL1 4EP

This document is only current as of the last updated date stated below and is valid only for use in the United Kingdom. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.uk. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2023-06-13

gcpat.uk/solutions/products/optec-ec-900