

POZZOLITH[®] 504

(Formerly Pozzolith CRP4 E)

High performance, retarding plasticiser for concrete

Description of Product

POZZOLITH 504 is a high performance, plasticising retarder beneficial in maintaining workability especially in high ambient temperatures.

Primary Uses

- Of particular value for ready-mixed concrete where high workability retention and retardation are of prime importance
- Hot weather concreting of all types
- Reduction in permeability, reducing effect of groundwater salts on concrete and steel
- To improve cohesion, workability and compatibility in concretes using poorly graded/shaped fine aggregates

Typical Applications

In hot weather concreting where delays to initial and final set are important and where maximum slump retention is of concern – such as site-batched, pre-cast, and ready-mixed concretes.

Advantages

- Considerably improves the cohesion of concrete, reducing segregation and bleed water
- Of particular use where fine aggregates of poor grading and particle shape are evident
- Reduces placing problems in hot weather, through improved workability and workability retention
- Improved surface finish
- Improved trowellability
- Reduces honeycombing/cold joint effects
- Improves pumpability of concrete
- Reduces effects of various modes of attack on concrete and embedded steel through considerable reduction in permeability

Compatibility

POZZOLITH 504 can be used with all types of Portland cement including SRC. For use with other special cements, contact BASF's Technical Services Department.

POZZOLITH 504 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing POZZOLITH 504, they must be dispensed separately.

Packaging

POZZOLITH 504 is available in 25ltr pails, 210ltr drums and 1000ltr containers.

Action

POZZOLITH 504 acts efficiently on cement particles by combining the effects of a powerful plasticising/deflocculating agent and retarder.

Typical Properties

Colour:	Dark brown liquid
Specific gravity:	1.150 ± 0.005
Air-entrainment:	0-1% depending on dosage rate
Chloride content:	Nil to BS 5075:1982
Nitrate content:	Nil
Freezing point:	0°C; can be reconstituted if stirred after thawing
Flashpoint:	None

Standards

ASTM C-494: Types B and D

BS 5075: Part 1

Directions for Use

Optimum performance is achieved when the admixture is added to the mixing water. Never add POZZOLITH 504 to dry cement. No extension to normal mixing time is necessary.



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Dosage

Trials should be conducted to determine the optimum addition rates of POZZOLITH 504, depending on mix design proposed and mix performance requirements.

As a general guide to these trials, a dosage range of 0.2-0.56ltr/100kg of cement is recommended as a starting point.

Depending on the desired properties, a dosage of up to 1000ml/100kg of cement can be used.

Effects of Over Dosage

A severe over-dosage of POZZOLITH 504 will result in the following:

- Retardation of initial and final set
- Slight increase in air-entrainment
- Increase in workability

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. The retarding effects of very high dosages will be exaggerated with SRC.

Dispensing

POZZOLITH 504 should be dispensed through a proprietary dispenser, such as is available from BASF.

Setting Times

POZZOLITH 504 acts efficiently to give controlled retardation of initial set. Setting times of concrete mixes are related to cement type and ambient temperatures.

Specification Clause

POZZOLITH 504, a retarding and plasticising concrete admixture manufactured by BASF, or similar approved, to the following specification:

POZZOLITH 504 is to be used in all concrete at a dosage range of 200ml to 560ml/100kg of cement in accordance with the manufacturer's instructions.

Specific gravity 1.150 ± 0.005

Complying with specification type:

ASTM C-494 Types B and D and BS 5075
Part 1

Composition: High molecular weight refined lignosulphonates and synthetic retarders

Storage

Store under cover, out of direct sunlight and protect from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice, consult BASF's Technical Services Department.

Shelf Life

Up to 24 months if stored according to manufacturer's instructions in unopened containers.

Safety Precautions

POZZOLITH 504 is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information, refer to the material safety data sheet.



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Note

Field service, where provided, does not constitute supervisory responsibility. For additional information, contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality Statement

All products manufactured by BASF Egypt, or imported from BASF affiliate companies world-wide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2000, ISO 14001:2004 & OHSAS 18001:1999 standards.

12/07 BASF-EG

* Properties listed are only for guidance and are not a guarantee of performance.

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