

POZZOLITH[®] CRP4

High performance retarding plasticiser for concrete

Description

POZZOLITH[®] CRP4 is a high performance plasticising retarder, beneficial in maintaining workability especially in high ambient temperatures.

Primary uses

- Of particular value for readymixed 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 compactability 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 readymixed 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 by improved workability and workability retention in conjunction with extended setting times.
- 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 by considerable reduction in permeability.

Compatibility

POZZOLITH[®] CRP4 can be used with all types of Portland cement including Sulphate Resisting. For use with other special cements, contact BASF's Technical Services Department.

POZZOLITH[®] CRP4 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing POZZOLITH[®] CRP4, they must be dispensed separately.

Packaging

POZZOLITH[®] CRP4 is available in bulk or in 210 litre drums.

Action

POZZOLITH[®] CRP4 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: | 1.200 @ 25°C |
| Chloride content: | "chloride free" to EN 934-2 |
| Freezing point: | 0°C |

Standards

EN 934-2 Tables 2 and 10
ASTM C-494: Types A, B and D
BS 5075: Part 1 (superseded by EN 934-2)

Directions for use

Optimum performance is achieved when the admixture is added to the mixing water. Never add POZZOLITH[®] CRP4 to the 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[®] CRP4, depending on mix design proposed and mix performance requirements. As a general guide to these trials, a dosage range of 200ml to 560ml per 100kg cement is recommended as a starting point. Depending on the desired properties, a dosage of up to 1000ml per 100kg of cement can be used.

Effects of over dosage

A severe over-dosage of POZZOLITH[®] CRP4 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 SR cement.

Dispensing

POZZOLITH[®] CRP4 should be dispensed through a proprietary dispenser, such as is available from BASF.

Setting times

POZZOLITH[®] CRP4 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[®] CRP4

POZZOLITH[®] CRP4, a retarding and plasticising concrete admixture manufactured by BASF, or similar approved, to the following specification:

POZZOLITH[®] CRP4 is to be used in all concrete (indicate) at a dosage range of 200ml to 560ml per 100kg of cement in accordance with the manufacturer's instructions.

Specific gravity 1.178 ± 0.005

Complying to specification type:

ASTM C-494 Types B and D or 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. Shelf life is up to 2 years when stored as above. 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.

Safety precautions

POZZOLITH[®] CRP4 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.



The Chemical Company

POZZOLITH[®] CRP4

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 and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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