

# POZZOLITH<sup>®</sup> 55R

## Plasticising and water reducing admixture with set retarding properties

### Description

POZZOLITH<sup>®</sup> 55R is a powerful plasticiser which disperses and deflocculates cement particles whilst delaying the hydration process, thereby retarding the initial and final set. It can be used to improve workability without the addition of extra water, or to allow reductions in the free water content. Due to improved dispersion of the cement particles the process of hydration proceeds under the optimum conditions, leading to improved strength characteristics with or without reduction in free water.

### Primary uses

- High strength, high cement content, low W/C ratio mixes.
- Hot weather concrete where control of initial and final set is important.
- White cement concrete.

### Typical applications

Slip formed concrete, high strength mixes, to control set of concrete particularly in high temperature conditions, bridge building, pre-stressed concrete work, mass concrete.

### Benefits

- Increases compressive, tensile and flexural strength of concrete.
- Increases density of concrete reducing permeability and thus increasing durability.
- Allows a reduction in free water in the region of 8-12%.
- Highly effective in high cement content low water cement ratio mixes where its use enables concrete to be made more workable without loss in strength, density and durability.
- Enables controlled extension of initial set.

- The retarding action allows continuous concrete pours to be made, thus reducing the number of construction joints needed.
- The strength gain of concrete containing POZZOLITH<sup>®</sup> 55R is enhanced. After retardation of initial and final set, a more rapid hardening of the concrete occurs, and the effect on stripping time is negligible.

### Packaging

POZZOLITH<sup>®</sup> 55R is available in bulk or 210 litre drums.

### Compatibility

POZZOLITH<sup>®</sup> 55R can be used with all types of Portland cement including sulphate resisting (Type V). For use with other special cements, contact BASF Technical Dept.

POZZOLITH<sup>®</sup> 55R should not be premixed with other admixtures. If other admixtures are to be used in concrete containing POZZOLITH<sup>®</sup> 55R, they must be dispensed separately. If in doubt, consult BASF Technical Dept.

### Properties

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

Colour:	clear/pale straw coloured liquid.
Specific gravity:	1.150-1.162 at 25°C.
Air entrainment:	Nil
Chloride content:	Nil to BS 5075 : 1982
Nitrate content:	Nil
Freezing point:	0°C. Can be reconstituted if stirred after thawing.

### Standards

ASTM C494 : Type B & D  
BS 5075 : Part 1

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## Directions for use

POZZOLITH<sup>®</sup> 55R should be added to the concrete mix during the mixing cycle, at the same time as the water, or the aggregates. Never add POZZOLITH<sup>®</sup> 55R to the dry cement. No extension to normal mixing time is necessary.

## Dosage

Field trials should be conducted to determine the optimum addition rates of POZZOLITH<sup>®</sup> 55R. As a guide to these trials, a dosage range of 160 to 280ml per 100kg cement is recommended as a starting point. Dosages outside this range can be used where improved workability, increased water reduction and / or further set retardation are required.

## Effects of over dosage

A severe over dosage of POZZOLITH<sup>®</sup> 55R will result in:

- Increased retardation of initial and final set.
- Increase in workability.

Providing concrete is properly cured the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. Care should be taken to allow for the affect on formwork pressures and on stripping times.

## Dispenser

POZZOLITH<sup>®</sup> 55R should be dispensed through a proprietary dispenser, such as is available from BASF.

## Storage

Up to 2 years in unopened original packing. 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.

## Safety precautions

POZZOLITH<sup>®</sup> 55R 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.

## 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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**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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