

POZZOLITH® 55 RP

(Replaces Atroment 55)

Plasticising and water reducing admixture with set retarding properties**Description**

POZZOLITH 55 RP 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.
- Rolling compaction concrete application.

Typical applications

Slipformed 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 55 RP 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 55 RP is available in bulk or 220 kg.drums and 1100 kg. containers.

Compatibility

POZZOLITH 55 RP can be used with all types of Portland cement including sulphate resisting (Type V). For use with other special cements, contact Degussa Iran Technical Dept.

POZZOLITH 55 RP should not be premixed with other admixtures. If other admixtures are to be used in concrete containing POZZOLITH 55 RP, they must be dispensed separately. If in doubt, consult Degussa Iran Technical Dept.

Properties*

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

| | |
|-------------------|---|
| Colour: | Brown |
| 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

Directions for use

POZZOLITH 55 RP should be added to the concrete mix during the mixing cycle, at the same time as the water, or the aggregates. Never add POZZOLITH 55 RP 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 55 RP. 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 55 RP will result in:

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

Providing concrete is properly cured the ultimate strength of the concrete will not be adversely effected 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 55 RP should be dispensed through a proprietary dispenser, such as is available from Degussa Iran.

Storage

Up to one year 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 Degussa's Technical Services Department.

Safety precautions

POZZOLITH 55 RP 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 Degussa representative.

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

Quality

All products produced by Degussa certified manufacturing facilities, are produced to conform to systems designed to meet internationally recognised quality standards.

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