

MasterPozzolith[®] 504

High performance, retarding plasticiser for concrete

DESCRIPTION

MasterPozzolith 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

PACKAGING

MasterPozzolith 504 is available in 1000ltr containers.

COMPATABILITY

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

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

ACTION

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

STANDARDS

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

TYPICAL PROPERTIES

Colour: Dark brown liquid Specific gravity: 1.135-1.165 Air-entrainment: 0-1% depending on dosage rate Chloride content:Nil to BS 5075:1982 pH: 5-7 Nitrate content: Nil Freezing point: 0°C; can be reconstituted if sti rred after thawing Flashpoint: None

DIRECTIONS FOR USE

MasterPozzolith 504 Optimum performance is achieved when the admixture is added to the mixing water. Never add **MasterPozzolith 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.

SETTING

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

EFFECTS OF OVER DOSAGE

A severe over-dosage of **MasterPozzolith 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

MasterPozzolith 504 should be dispensed through a proprietary dispenser, such as is available from Master Builders Solutions .

SPECIFICATION CLAUSE

MasterPozzolith 504, a retarding and plasticising concrete admixture manufactured by Master Builders Solutions or similar approved, to the following specification: **MasterPozzolith 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. 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 advices consult Master Builders Solutions 's Technical Services Dept.

SAFETY PRECAUTIONS

MasterPozzolith 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.

NOTE

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

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods



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QUALITY AND CARE

All products manufactured by Master Builders Solutions Egypt, or imported from Master Builders Solutions affiliate companies worldwide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in theISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 standards.

* Properties listed are based on laboratory controlled tests.

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MBS Construction Chemicals Egypt (S.A.E), Business Park A, Building A1, Cairo Festival City, Ring Road, New Cairo, Egypt Hotline: 15560, Phone: +202 2128 7800, Fax: +202 2128 7801 Website: <u>https://www.master-builders-solutions.com/en-eg</u>

