

MasterPozzolith 555

Non-chloride accelerating admixture

MATERIAL DESCRIPTION

MasterPozzolith 555 is a ready-to-use liquid admixture formulated to accelerate the setting time of concrete under cool winter conditions and to produce high-early strength in special application concrete. It does not contain added chloride and conforms to the most stringent chloride ion limits required by concrete industry standards.

MasterPozzolith 555 meets and exceeds AS 1478.1 Type Ac and ASTM C494 Type C requirements.

RECOMMENDED FOR

All types of concrete where a non-chloride type accelerator is beneficial:

- · cold weather concreting
- concrete subject to chloride ion constraints such as high rise buildings in coastal environments
- concrete placed on galvanised steel floor and roof systems which are left in place
- precast concrete either pre-tensioned or posttensioned
- concrete pipes and other manufactured concrete products such as tiles and blocks
- concrete highway and bridge construction

FEATURES AND BENEFITS

Concrete with **MasterPozzolith 555** admixture has a significantly faster setting time than plain concrete. Increasing the dosage rate increases set acceleration. Both the compressive and the flexural strengths of concrete with **MasterPozzolith 555** develop, more rapidly than with plain concrete.

Benefits to concrete construction and to the manufacture of concrete products because of this earlier setting and and strength gain in cold weather include:

- earlier finishing of slabwork without the need for calcium chloride
- more efficient scheduling, generally faster construction and earlier occupancy
- earlier stripping and re-use of forms for walls, precast work and other fast-track construction
- earlier structural use of concrete such as tiltslab, paving, floors, car-park
- potential energy savings in steam cured concrete (precast, prestressed, blocks) by reducing curing temperatures and/or steaming time necessary to reach desired transfer strengths

TYPICAL PROPERTIES*

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

Appearance	Opaque liquid
Specific gravity	1.3 at 25°C
Flashpoint	None
рН	4.5
Freezing point	-2°C

DOSAGE

MasterPozzolith 555 contains no added chlorides which means it will not initiate or promote the corrosion of reinforcing steel.

MasterPozzolith 555 is used over a wide dose range of 300 to 1300 mls and above per 100kg of cementitious material. The dosage rate is dependent on the ambient concrete temperatures, cement chemistry and the amount of acceleration required.

The degree of set-acceleration increases with dose rates, allowing concrete producers to control the setting rate of their product. Where mild acceleration with improved workability and finishing characteristics is required, use at 300-500 mls per 100kg in conjunction with a low dose of a normal setting admixture such as 300mls per 100kg of a Master Builders Solutions plasticizer. Where greater acceleration, under extremely cold conditions or where rapid setting is required, use at 600 to 1300 mls per 100kg cementitious content.

COMPATABILITIES

MasterPozzolith 555 can be used with airentraining admixtures and other Master Builders Solutions admixtures to achieve cost-effective customised concrete performance. However, admixtures should be added separately to initial batching water to ensure complete distribution throughout the mix. **MasterPozzolith 555** should not be used in conjunction with other admixtures supplied by other manufacturers unless specific test information is available.

PACKAGING

MasterPozzolith 555 is available in 20L and 1000 litre IBCs or in bulk.



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NOTE FOR TEST LABORATORIES

MasterPozzolith 555 is designed to perform best in cold weather concrete. Tests conducted in laboratories at 23° +/- 2°C will not necessarily produce the degree of set acceleration that will be achieved in the field at lower temperatures.

PRECAUTIONS

MasterPozzolith 555 is stable in neutral and alkaline conditions. Avoid mixing or bringing it into contact with strong acids (such as hydrochloric/muriatic acid) in the presence of oxidising agents (e.g. hydrogen peroxide, nitrous acid compounds and sodium hypochlorite).

Laboratory analysis involving degradation by strong acids or pre-treatment with oxidising agents should be performed in an efficient fume extraction cupboard.

STORAGE

MasterPozzolith 555 must be stored where temperatures do not drop below +5°C. If product has frozen thaw and agitate until completely reconstituted. Store under cover, out of direct sunlight and protect from extremes of temperatures.

SAFETY PRECAUTIONS

MasterPozzolith 555 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

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

DISCLAIMER

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