

MasterSet R107

Low dosage, retarding and plasticizing admixture for concrete

MATERIAL DESCRIPTION

MasterSet R 107 is a liquid admixture, which acts on cement particles in the mix, combining the effects of a powerful plasticiser and deflocculating agent with controlled retardation.

APPLICATIONS

- Hot weather concreting, where controlled delay to initial set is of prime importance.
- Ready-mix concrete, where workability retention coupled with retardation of initial set are beneficial.
- To improve cohesion, workability and compaction in concretes using poorly graded/shaped fine aggregates.
- Large slabs or bridge decks, etc., where extension of vibration limits is beneficial to avoid cold joints.

ADVANTAGES

- Considerably extends vibration limit of concrete mixes, thus reducing incidence of honeycombing and cold joints.
- Reduces placing problems in hot weather concreting, by improving workability and workability retention.
- Improves trowelability and surface finish.
- Improves pumpability of concrete.
- Considerably reduces permeability.
- Enables economies in mix designs to be achieved.

PACKAGING

MasterSet R107 is available in 20L and 1000 litre IBCs or in bulk.

TYPICAL PROPERTIES*

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

Appearance	Brownish liquid
Specific gravity @ 25°C	1.160 – 1.180
pH Value	6.0 – 8.0
Air-Entrainment	Less than 1%
Chloride Content	Nil to BS 5075:1982
Nitrate Content	Nil
Freezing Point	0°C can be reconstituted if stirred after thawing
Flashpoint	Nil

STANDARD

ASTM C494 Types A, B and D
 BS 5075: Part 1

DIRECTIONS FOR USE

MasterSet R 107 should be added to concrete mix during the mixing cycle at the same time as water. Never add **MasterSet R 107** to dry cement. No extension to normal mixing time is necessary.

DOSAGE

In all cases, we recommend that trial mixes are carried out to determine the correct levels of admixture required to achieve the desired concrete properties. **MasterSet R 107** is normally dispensed, depending on the desired plasticising or water-reducing effect, at a rate of 0.2-1.0 liter/100kg.

Other dosages may be used, depending on the materials and conditions.

SETTING TIMES

MasterSet R 107 acts efficiently to give controlled retardation of initial set. Setting times of concrete mixes are related to cement type and ambient temperatures.

COMPATABILITY

MasterSet R 107 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.

MasterSet R 107 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing **MasterSet R 107**, they must be dispensed separately.

Consult Master Builders Solutions's Technical services department for advice.

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EFFECTS OF OVER DOSAGE

A severe over dosage of **MasterSet R 107** will result in the following:

- Retardation of initial and final set.
- Slight increase in air-entrainment.
- Increase in workability.

Provided 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

MasterSet R 107 is introduced into the mixer with the mixing water. The admixture works more efficiently if it is added to the dampened mix after 50-70% of the water has been introduced.

No extension to normal mixing time is necessary. **MasterSet R 107** should never be added to dry cement.

STORAGE

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 Master Builders Solutions's Technical Services Department.

SHELF LIFE

Up to 12 months if stored according to manufacturer's instructions in unopened containers.

SAFETY PRECAUTIONS

MasterSet R 107 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.

* Properties listed are based on laboratory controlled tests.

DISCLAIMER

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