

# MasterSet<sup>®</sup> R 107

## Low dosage, retarding and plasticising admixture for concrete

### DESCRIPTION OF PRODUCT

**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 R 107** is available in 20L, 210 litre drums, 1000 litre IBC's or in bulk.

### TYPICAL PROPERTIES\*

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

### STANDARDS

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.

### COMPATIBILITY

**MasterSet R 107** can be used with all types of Portland cement, including SRC. For use with other special cements, contact BASF'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 BASF's Technical Services Department for advice.

# MasterSet<sup>®</sup> R 107

## 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 BASF'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

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 & RESPONSIBLE CARE

All products originating from BASF Construction Chemicals South Africa 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.

® = Registered trademark of the BASF-Group in many countries

## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.