

TECHNICAL DATA SHEET

RITEMIX R60

Retarding Admixture

PRODUCT DESCRIPTION

RITEMIX R60 is a chloride free water reducing admixture based on selected hydroxycarboxylic materials. It is supplied as a brown solution which instantly disperses in water.

RITEMIX R60 disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The initial hydration of the cement is also delayed, resulting in a delay in the setting time of the concrete with no adverse effect on subsequent stiffening and strength gain.

The retarding properties of **RITEMIX R60** can also be beneficial in concrete where high cement content or high temperatures are involved. Cold joints in continuous pours may be avoided and the use of lower cement contents will reduce heat of hydration.

CUSTOMER BENEFITS

- Set retardation allows extra placing time for larger pours.
- Increased workability facilitates placing and compaction.
- High strengths without increase in cement content or reduction in workability.
- Strength specifications and workability can be maintained with less cement.
- Set retardation controls stiffening time of concrete in hot weather.

Standards compliance

RITEMIX R60 conforms with ASTM C494 as Type D.

Typical Dosage

The optimum dosage of **RITEMIX R60** to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimization of admixture dosage and mix design and provides a complete assessment of the concrete mix. A starting point for such trials is to use a dosage within the normal typical range of 0.30 to 0.60 liters /100kg.

Use at other dosages

Dosages outside the typical range quoted above may be used if necessary and suitable to meet particular mix requirements, provided that adequate supervision is available. Compliance with requirements must be

assessed through trial mixes. Contact Technical Department for advice in these cases.

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Effects of overdosing

An overdose of double the intended amount **RITEMIX R60** will result in a significant increase in retardation as compared to that normally obtained at the intended dosage. Provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired by increased retardation and will generally be increased. The effects of overdosing will be further increased if sulfate resisting cement or cement replacement materials are used.

Instructions for use

Retardation

The level of retardation obtained may be varied by altering the dosage of **RITEMIX R60** used, this will also alter the level of water reduction obtained. Retardation is also affected by factors other than the admixture, depending on the mix details and conditions involved. Major factors include the following:

- a. Cement replacement materials and Sulfate Resistant Cement (SRC) will usually give greater levels of retardation than concrete mixes made with ordinary Portland cement at the same admixture dosage. Trials need to be conducted to establish the required dosage.
- b. High temperatures will require increased dosages to obtain the same change in stiffening time compared to a control mix.
- c. Changes in cement content, source or chemistry may lead to variations in the retardation obtained. The amount of tri-calcium aluminate in the cement has been identified as being one of the main contributory factors in this respect, with a lower level leading to greater retardation.
- d. The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times.

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Compatibility

RITEMIX R60 is compatible with other Magna Prime admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be premixed together prior to addition. The resultant properties of concrete containing more than one admixture should be assessed by the trial mixes to ensure that effects such as unwanted excessive retardation do not occur.

RITEMIX R60 is suitable for use with all types of ordinary Portland cements and cement replacement materials.

PACKAGING

RITEMIX R60 is available in 20 liters and 200liter (drums).

Storage

RITEMIX R60 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2°C to 50°C. Should the temperature of the product fall outside this range contact Magna Prime for advice.

Freezing point: Approximately -4°C

Precautions

Health and safety

RITEMIX R60 does not fall into the hazard classifications of current regulations (see notes 1 and 2 below). However, it should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - **do not** induce vomiting.

For further information consult the Safety Data Sheet available for this product.

Fire

RITEMIX R60 is water based and non-flammable.

Cleaning and disposal

Spillages of **RITEMIX R60** should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.