

# V-MAR<sup>®</sup> 6R

Rheology Modifying Concrete Admixture

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## Product Description

V-MAR<sup>®</sup>6R is an innovative low viscosity, highly efficient, rheology modifying admixture designed for the production of concrete with improved handling and processing characteristics. It enables pump mixes to be more easily and economically produced, as well as increasing tolerance to water variations or poorly graded aggregates. It is beneficial in improving cohesion of all concrete mix designs, including Self Compacting Concrete and can be used to reduce segregation, bleed and settlement of the mix constituents.

V-MAR<sup>®</sup>6R can be used over a wide dosage range to produce a range of concrete mix designs that have excellent plastic and hardened properties

V-MAR<sup>®</sup>6R is itself low viscosity, with excellent dispensing properties.

## Advantages

- Low viscosity, suitable for easy dosing
- Produces self compacting concrete which has excellent rheology
- Enhances the pumpability of concrete mixes, reducing pump pressures and increasing pumping distances
- Reduces the tendency of concrete to bleed or segregate, particularly at lower powder contents
- Can be used to produce underwater concrete, minimizing segregation and loss of paste volume
- Used for pumping of lightweight concrete
- Minimal impact on setting time and excellent early age strength development

## Typical Properties

Appearance	Amber / Straw liquid
Specific Gravity (20 °C)	1.000
Alkali Content (eq. Na <sub>2</sub> O)	max 2.00%
Chloride Content	Nil
Air Entrainment	1.0%
Freezing Point	0 °C

## Method Of Use

V-MAR<sup>®</sup>6R is supplied ready for use.

When adding to a concrete mix it should be added in its supplied form with part of the batching water, after the addition of the cementitious component.

## Compatibility with Cements

V-MAR®6R can be used with all types of cement, including limestone cements. It is also effective in concretes containing fly ash or ground granulated blastfurnace slag, however some reduction in dosage may be necessary.

For use with special cements we recommend you contact GCP Applied Technologies.

## Compatibility with Other Admixtures

V-MAR®6R should not under any circumstances be premixed with other admixtures. The performance of the product will be affected by the presence of other chemical admixtures.

## Addition Rates

Range	100 ml –500 ml per 100 kg cement
	0.10%-0.50% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.15 – 0.30% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

As with most products of this type, the magnitude of the effect obtained with V-MAR®6R is governed by the quantity used, water/cement ratio, and specific nature of the concrete and constituent materials.

It is necessary, therefore, to assess performance under site conditions using actual materials to determine optimum dosage and effect on both plastic and hardened concrete properties, such as cohesiveness, workability retention, set characteristics, early rate of strength gain, ultimate compressive strength and shrinkage when these are of consequence.

## Effects of Overdosing

The effect of overdosing V-MAR®6R is a function of the degree of overdose.

When producing high workability concrete, overdosing will increase the level of workability and may induce the onset of segregation.

Depending on the extent of the overdose, an increase in setting time may also occur, especially in low ambient temperatures and/or when employing sulfate resisting cement or cement replacement materials.

Any situation where an overdose is suspected, careful inspection of the concrete in its plastic state should be conducted. Particular attention to consistency and cohesiveness prior to a decision on the suitability of the concrete for the particular application in question.

## Dispensing

It is preferable that V-MAR®6R should be introduced into the mixer by means of automatic dispensing equipment.

## Health and Safety

For further information on Health and Safety matters regarding this product we recommend that you consult the relevant Safety Data Sheet from GCP Applied Technologies.

In line with general chemical handling precautions avoid contact with skin or eyes and protective gloves/goggles should be worn.

## Packaging and Storage

V-MAR®6R is supplied in 205 non returnable drums and 1,000 litre totes.

Alternatively, bulk deliveries can be arranged.

V-MAR®6R should preferably be stored away from extremes of cold or heat. The product should be kept out of direct sunlight in shaded storage at all times.

### Storage Life in Manufacturer's Drums:

12 months from date of manufacture.

### Storage Life in Bulk Storage:

12 months from date of delivery.

## Technical Service

Our Technical Service department of GCP Applied Technologies is available to assist you in the correct use of our performance chemicals.

gcpat.uk | United Kingdom customer service: +44 (0) 1925 855330 Fax: 01925 855350

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