

MIRA[®] SR 31

High Performance Water Reducing Admixture with Enhanced Consistence Retention Performance

Product Description

MIRA[®]SR 31 is a high performance water reducer designed for use in a wide range of concrete applications and as well as a plasticising effect will also provide extended slump retention properties and is particularly beneficial for long or difficult pours.

It can be used at a range of dosage levels to reduce water content, increase compressive strength and/or the consistence class of concrete mixes.

MIRA[®]SR 31 is manufactured under controlled conditions to give a consistent product. Depending on addition rate, MIRA[®]SR 31 conforms to EN 934-2.

Advantages

- MIRA[®] SR 31 yields exceptional consistence retention and can be used to achieve extended consistence life over normal plasticising admixtures
- Facilitates cement content reductions
- Produces plasticised and high-consistence concrete when used at increased dosages
- Designed for use with manufactured sands and crushed rock fines
- Exhibits predictable retardation characteristics
- Compatible with ggbs and fly ash concretes
- Increases cement economics
- Aids cohesion of concrete
- Multi-role capabilities

Typical Properties

MIRA [®] SR 31	
Appearance	Dark Brown Liquid
Specific Gravity (20 °C)	1.14
Alkali Content (eq.Na ₂ O)	2.20%
Chloride Content	Nil
Air Entrainment	1.0 %
Freezing Point	0 °C

Method Of Use

MIRA®SR 31 is supplied ready for use. When producing consistence concrete it should be added in its supplied form with part of the batching water after the addition of the cement component.

After the addition of MIRA®SR 31, a further mixing cycle of a least two minutes is recommended to enable MIRA®SR 31 to efficiently disperse the mix components.

Compatibility

With Cements :

MIRA®SR 31 can be used with most types of Portland cements. It is also effective in concrete containing fly ash or ground granulated blastfurnace slag. For use with special cements we recommend that you consult GCP Applied Technologies.

With Other Admixtures:

MIRA®SR 31 is fully compatible with all GCP admixtures normally used in concrete production.

Each admixture must be added separately. Individually added, each will deliver exactly the results desired.

However, the performance of the material may be affected by the presence of other chemicals and we would recommend that GCP be consulted in such circumstances.

Addition Rates

Range	400 ml –800 ml per 100 kg cement
	0.40% –0.80% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.50% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

MIRA®SR 31 is a versatile, high performance product that benefits from a wide variety of applications. As with most products of this type, level of effectiveness is governed by the quantity of product used and the specific nature of the concrete mix and constituent materials.

The performance of MIRA®SR 31 is best assessed after preliminary tests to determine the optimum dosage and effect on both plastic and hardened concrete, such as cohesiveness, consistence retention, and setting, rate of early strength gain, ultimate strength and shrinkage.

Effects of Overdosing

As dosage is increased throughout the recommended range, concrete consistence and retardation of set also increases. These effects will be more pronounced when using cement replacements and in cold weather. In mixes containing fly ash or ggbs, or indeed where concrete setting times are crucial such as flooring applications, a reduced dosage rate may be appropriate.

Accidental overdosing particularly in cold weather; will be accompanied by retardation of set of the concrete. Providing overdosed concrete is properly cured, the ultimate strength will generally be higher than that of a normal concrete.

Planned overdosing outside the recommended range should be further discussed with the Technical Service department of GCP.

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 the MIRA®SR 31 should be introduced into the mixer by automatic dispensing equipment. Equipment or advice on dispensing can be obtained from GCP.

Health and Safety

For further information on Health and Safety matters regarding this product we recommend that you consult the relevant Material Safety Data Sheet from GCP. In line with general chemical handling precautions avoid contact with skin or eyes and protective gloves/goggles should be worn.

Packaging

MIRA®SR 31 is supplied in both 15 and 205 non returnable drums and 1,000 litre totes. Alternatively, bulk deliveries can be arranged.

Storage

MIRA SR 31 should be stored away from the extremes of temperature and then protected from frost. If the product does freeze, it should be thawed and carefully re-mixed before use. 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 | Customer Service: Tel: 01925 855330 Fax: 01925 855350

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