

# MIRA<sup>®</sup> 299S

Mid-range water-reducing admixture

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## Product Description

MIRA<sup>®</sup>299S is a mid-range water reducer specifically formulated to produce concretes with enhanced finishing characteristics and controlled set time. It is a ready-to-use liquid admixture with superior dispersing capacity for the cement particles in the concrete mix. This capability exceeds that of normal water-reducing admixtures, resulting in better control. MIRA 299S contains no added chloride. One litre weighs approximately 1.24kg ± 0.02kg.

MIRA 299S is formulated to comply with the following chemical admixture specifications for concrete: ASTM C494, Type D, Type G; BS 5075: Part 1.

## Applications

Excellent slump control and slump retention are necessary properties of any high quality concrete. MIRA 299S is a tailor-made admixture that helps concrete to achieve excellent slump retention for all ranges of design workability. MIRA 299S is extremely effective in enhancing workability and slump retention even in mid-slump concrete and concrete with manufactured sand (crush granite fines), where conventional admixtures have difficulties achieving these properties.

MIRA 299S can help to optimise total concrete cost in the readymix concrete business. MIRA 299S enables use of alternative materials, for instance, higher percentage use of fly ash may be possible. MIRA 299S works well with both Portland Cement and Portland Composite Cement. MIRA 299S can be used to produce a highslump concrete, at the same water-to-binder ratio.

MIRA 299S is suitable for a wide range of quality concrete, from low to higher grade concrete, by adjusting addition rate. The use of Daracem<sup>®</sup> or Darex<sup>®</sup> superplasticiser can help to provide further water reduction when very low water-cement ratio is needed.

## Product Advantages

- MIRA 299S is robust to variation in harmful clay content in manufactured sand or quarry dust, and help accommodate variation in quality of manufactured sand to give consistent quality of concrete.
- Provides long slump life with controlled set times.
- 8 to 20% water reduction and dispersion characteristics allow the production of lower water to cement ratio concretes and more complete hydration.
- Finishes easily without stickiness, tearing or spotty set characteristics, which results in quick and easy application to the concrete mix water for rapid batching.

## Compatibility with Other Admixtures

Most water reducers or water-reducing retarders are compatible with MIRA 299S as long as they are added separately to the concrete. MIRA 299S is not compatible with polycarboxylatebased admixtures.



## Addition Rates

Addition rates of MIRA 299S can vary with type of application. Depending on the application, dosage rates can range from 300 to 1,000mL / 100kg of cementitious material. At a given watercement ratio, the slump required for placement can be controlled by varying the addition rate. It is recommended that trials are conducted beforehand to determine the optimum dose range to suit your application. If further assistance is required please consult your local GCP representative.

## Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product.

## Packaging and Storage

MIRA 299S is available in bulk and in 205L drums. MIRA 299S contains no flammable ingredients. For proper dispensing, MIRA 299S should be stored under shelter and away from direct sunlight.

## Health and Safety

See MIRA 299S Material Safety Data Sheet or consult GCP Applied Technologies.

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