

# MIRA<sup>®</sup> Q83

Mid-range water-reducing admixture

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## Product Description

MIRA<sup>®</sup>Q83 is a mid-range water reducer specifically formulated to produce concrete with enhanced finishing characteristics and controlled set time. Effective through a wide addition rate range, MIRA Q83 combines the benefits of normal and high range water reducers allowing for improved control of the concrete's placing and finishing properties.

MIRA Q83 is an aqueous solution of complex organic compounds, each of which contributes uniquely to the concrete's final properties. It contains patented finishability agents that provide performance superior to conventional water-reducing products. MIRA Q83 is also formulated with a catalyst which promotes more complete hydration of portland cement to assure superior strength performance. It is manufactured under rigid controls which provide uniform, predictable performance. MIRA Q83 contains no calcium chloride. Supplied as a dark brown, low viscosity liquid, one litre weighs approximately 1.20kg ± 0.02kg.

MIRA Q83 complies with the admixture specifications of SS 320: 1987.

## Product Advantages

### Improved Workability, Finishability and Pumpability

The exceptional water-reducing capabilities allow for concrete production at higher slumps with better water retention and internal cohesiveness, providing a less harsh concrete with improved placement properties. Formulated with proven finishing enhancing components, MIRA Q83 controls bleeding while bringing the paste to the surface. Finishers have stated that the concrete has improved trowelability. The influence of MIRA Q83 on the finishability and pumpability of lean mixes and mixes using manufactured sand has been particularly noticeable. Floating and troweling, by machine or by hand, easily imparts a smooth, close tolerance surface with less finishing time and labour.

### Superior Strength Performance

The water reduction properties, 5-12% water reduction, and dispersion characteristics allow the production of lower water to cement ratio concrete and more complete hydration. The combined effect is increased compressive and flexural strengths at all ages.

## Applications

MIRA Q83 produces a concrete with lower water content, improved placement properties and enhanced finishability. It yields a less permeable and more durable concrete. MIRA Q83 is effective in improving pumpability and finishability of concrete using angular and coarse manufactured sand (in place of natural sand). It imparts a “slickness” to the surface of the concrete making it most appropriate for concrete flatwork as well as slip form work. MIRA Q83 is also particularly effective in lean or fly ash and slag compensated mixes. MIRA Q83 delays the initial and final set times of concrete, typically by 1 to 5 hours.



## Addition Rates

The addition rate range of MIRA Q83 is typically 300 to 600mL / 100kg of cementitious material. Optimal addition rate depends on the other concrete mixture components, job conditions, and desired performance characteristics.

## Compatibility with Other Admixtures

MIRA Q83 is compatible with all air entrainers, water reducers, retarders, accelerators and high range water reducers. Due to a synergistic effect of MIRA Q83, the amount of air-entraining may be reduced by 25 to 50% when added to concrete with MIRA Q83. Each admixture should be added to the concrete separately.

## Packaging

MIRA Q83 is available in bulk, and 205L drums. MIRA Q83 contains no flammable ingredients. It will freeze at approximately  $-9^{\circ}\text{C}$  but will return to full strength after thawing and thorough mechanical agitation.

## Dispensing Equipment

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

## Health and Safety

See MIRA Q83 Material Safety Data Sheet or consult GCP Applied Technologies.

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