

# MIRA<sup>®</sup> 79N

Mid-range water-reducing admixture

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## Product Description

MIRA<sup>®</sup>79N is a water reducer specifically formulated to produce concrete with enhanced water reduction, and yield a less permeable and more durable concrete. MIRA<sup>®</sup>79N is an aqueous solution of complex organic compounds, each of which contributes uniquely to the final concrete properties.

Effective through a wide addition rate range, MIRA<sup>®</sup>79N combines the benefits of normal and high range water reducers allowing for the ultimate control of concrete placing and finishing properties.

MIRA<sup>®</sup>79N is manufactured under rigid control, which provides uniform, predictable performance. It does not contain calcium chloride, and is ready-to-use as received. Supplied as a dark brown, low viscosity liquid, one litre weighs 1.130kg ± 0.02kg.

## Specification Type

MIRA<sup>®</sup>79N complies with the requirements of the following chemical admixture specifications for concrete: AS 1478 as a Type MWR.

## Product Advantages

- Higher early compressive and flexural strengths
- Improved concrete finishing, ideal for concrete flatwork

## Applications

MIRA<sup>®</sup>79N enables concrete to be produced with lower water content and improved placement properties.

MIRA<sup>®</sup>79N makes a workable mix with over 10% less water and yields a stronger, less permeable and more durable concrete.

MIRA<sup>®</sup>79N is used in ready mix, job site, and concrete paving plants for normal and lightweight concrete and in block and precast plants. It is also effective in lean or fly ash and slag compensated mixes.

MIRA<sup>®</sup>79N will typically impart the following benefits:

- Higher early compressive and flexural strengths
- Improved concrete finishing. MIRA<sup>®</sup> 79N also imparts “slickness” to the surface of the concrete making it appropriate for most concrete flatwork.

## Chemical Action

As a dispersing agent, MIRA®79N lessens the natural inter-particle attraction between cement grains in water. It does this by colloidal action, by absorption on the cement particles, thus reducing their tendency to clump together and makes the mix more workable with less water.

As a cement catalyst, MIRA®79N also effects a more complete hydration of the cement, beginning immediately after the cement and water come together. MIRA®79N increases the gel content of the concrete, the paste or binder that “glues” the concrete aggregates together. The increased gel content adds to the water retention and internal cohesiveness of the mix, reducing bleeding and segregation as it increases workability and placeability.

## Addition Rate

MIRA®79N will provide high water reduction with minimal extension on concrete finishing times. The amount of MIRA®79N to be used will typically range from 300 to 1,000mL / 100kg of cementitious material, depending upon job requirements.

To assist you in obtaining optimum performance from your GCP admixtures, we offer a comprehensive advice and site assistance service backed by trained personnel, experienced in concrete and admixture technology and the facilities of our fully equipped laboratories.

## Compatibility with Other Admixtures

MIRA®79N is compatible with all Portland cement systems, including fly ash, slag and limestone blends. It is also compatible with all GCP admixtures currently available, but should be added to the mix separately, and not premixed with other admixtures prior to addition. Each admixture should be added to the concrete separately.

## Dispensing Equipment

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

## Packaging and Storage

MIRA®79N is available in bulk and 205L drum. MIRA®79N contains no flammable ingredients. It will freeze at approximately -2 °C but will return to full strength after thawing and thorough mechanical agitation.

## Health and Safety

See MIRA®79N Material Safety Data Sheet or consult GCP Applied Technologies.

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