

MIRA® 72

Mid-range water-reducing admixture

Product Description

MIRA®72 is a water reducer specifically formulated to produce concrete with enhanced water reduction, and yield a less permeable and more durable concrete. MIRA 72 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 72 combines the benefits of normal and high range water reducers allowing for the ultimate control of concrete placing and finishing properties.

MIRA 72 contains patented chemicals that provide improved workability and finishability to the concrete surface whilst providing air contents that are lower than conventional water reducers.

MIRA 72 is manufactured under rigid control, which provides uniform, predictable performance. It does not contain calcium chlorides, and is ready-to-use as received. Supplied as a dark brown, low viscosity liquid, one litre weighs $1.180 \text{kg} \pm 0.02 \text{kg}$

Specification Type

MIRA 72 complies with the requirements of the following chemical admixture specifications for concrete: AS 1478 as a Type WR.

Product Advantages

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

Chemical Action

As a dispersing agent, MIRA 72 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 72 also effects a more complete hydration of the cement, beginning immediately after the cement and water come together. MIRA 72 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.



Compatibility with Other Admixtures

MIRA 72 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.



Applications

MIRA 72 enables concrete to be produced with lower water content and improved placement properties.

MIRA 72 makes a workable mix with up to 15% less water and yields a stronger, less permeable and more durable concrete.

MIRA 72 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.

Compared to other water reducers, MIRA 72 will typically impart the following additional benefits:

- Higher early compressive and flexural strengths
- Improved concrete finishing. MIRA 72 also imparts "slickness" to the surface of the concrete making it appropriate for most concrete flatwork.



Addition Rate

MIRA 72 will provide high water reduction with minimal extension on concrete finishing times. The amount of MIRA 72 to be used will typically range from 300 to 600mL / 100kg of cementitious material, depending upon job requirements. However, higher addition rates may be used due to variations in cement, aggregate or other job site conditions.

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.

Overdosing of MIRA 72 may result in extended concrete finishing times. Consult your local GCP representative if overdosing occurs.

Packaging and Storage

MIRA 72 is available in bulk and 205 L drums. MIRA 72 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 72 Material Safety Data Sheet or consult GCP Applied Technologies.

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