

# WRDA<sup>®</sup> 96M

Water-reducing initial set retarder

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## Product Description

WRDA<sup>®</sup>96M is a high performance, ready-to-use liquid admixture, formulated from selected purity lignosulphonates and modified polymers. Ingredients are factory premixed in exact proportions to minimise handling, eliminate mistakes and guesswork. WRDA 96M is formulated to comply with the following chemical admixture specifications for concrete: ASTM C 494, Type B and D; BS 5075: Part 1; SS 320: 1987.

One litre of WRDA 96M weighs approximately 1.08kg ± 0.02kg.

## Application

WRDA 96M retards the initial and final set of concrete. At the usual addition rate of 300mL / 100kg cementitious material it will extend the initial setting time of portland cement concrete by 2 to 3 hours at 21 °C. WRDA 96M is used wherever a delay in setting time is required to insure sufficient delivery, placement, vibration or compaction time, such as in:

- Hot Weather Concreting
- Transit Mix Concrete
- Prestressed Concrete

WRDA 96M is also used in special applications, as in bridge decks where it extends plastic characteristics of the concrete until progressive deflection resulting from increasing loads is completed.

## Addition Rates

Addition rates for WRDA 96M will typically range from 200 to 600mL / 100kg of cementitious material. The amount to be used will depend upon the degree of retardation required under job conditions. Longer setting times or higher temperatures will require higher addition rates. Conversely, the addition rate will be lower for shorter extensions of time.

## Dispensing Equipment

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

## Packaging

WRDA 96M is available in bulk and 205L drums. It contains no flammable ingredients. WRDA 96M will freeze at about -2 °C, but will return to full strength after thawing and thorough agitation.



## Water-reducing Properties

Along with set retardation, WRDA 96M provides water-reduction (typically 8 to 12%) in a concrete mix. This water-reducing action of WRDA 96M produces greater plasticity and workability in the fresh concrete and the strength and permeability of the hardened concrete are measurably improved. WRDA 96M is designed for use on jobs where high temperatures make extended setting times desirable. It is recommended only when the primary purpose is to delay and control the setting time of concrete. When time and temperature are not major considerations, water-reducing admixtures from GCP Applied Technologies should be used. Please consult our representative for the most appropriate admixture for your project application.

## Compatibility with Other Admixtures

WRDA 96M is compatible in concrete with all commercial air-entraining admixtures, such as DARAVAIR<sup>®</sup> or DAREX<sup>®</sup> AEA<sup>®</sup>. Due to the slight air-entraining properties of WRDA 96M itself, the addition rate of Daravair may be reduced by about 25%. By combining the separate effects of air entrainment and dispersion, the water requirement of concrete may be

## Health and Safety

See WRDA 96M Material Safety Data Sheet or consult GCP Applied Technologies.

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