

WRDA[®] 35

Concrete Plasticiser

Product Description

WRDA[®]35 is a high performance liquid concrete plasticiser or water-reducing agent used to improve the workability of concrete mixtures or to permit effective reductions in free water content. It can be used especially in hot weather conditions, where a delayed set will allow sufficient delivery and placement times.

WRDA 35 is extremely versatile in application and is effective over a wide range of mix designs from low through to high cement contents and by virtue of its water reducing properties can also be used to reduce the permeability of concrete.

WRDA 35 is formulated from a blend of both synthetic and naturally derived raw materials and is manufactured under controlled conditions producing a consistent product.

It meets the requirements of ASTM C-494 Type D and BS EN 934-2.

Typical Properties

Appearance	dark brown liquid
Specific Gravity	1.20 at 20 °C
Air Entrainment	Minimal, concrete mixes will normally be increased by 1%–2%.
Chloride Content	Nil
Freezing Point	0 °C

Product Advantages

- Can be used to extend workability, thus allowing concrete to be placed and compacted adequately.
- Strength increases at all ages, can be obtained by utilization of the effective water reduction capabilities.
- Improved permeability and reduced shrinkage in hardened concrete.
- Improves finish and compaction.
- Allows the concrete to be more cohesive providing less segregation and bleeding effects.

Method of Use

WRDA 35 is supplied ready for use and should be added to the concrete mixes during the mixing cycle at the same time as the mixing water. It should not be added directly to the cement. Extension of normal mixing time is not usually necessary.

Compatibility with Cements

WRDA 35 can be used with all types of Portland cement including sulphate resisting cements. It can also be used in concrete mix designs containing pulverised fly ash and blast furnace slag.

Compatibility with other Admixtures

WRDA 35 should not be premixed under any circumstances with other admixtures. While some admixtures can be usefully combined within the same mix the performance of this product may well be affected by the presence of other chemicals and we recommend that GCP Applied Technologies be contacted for advice in all such circumstances.

Addition Rates

Range: 0.20%–1.0% volume by weight of cement

The performance of WRDA 35 is best assessed after preliminary tests on site using the actual concrete under consideration to determine the optimum dosage and effect on properties such as compressive strength (early and ultimate) shrinkage, air content, setting times etc., when these are of consequence.

WRDA 35 is a versatile high performance product that is of benefit to a wide variety of applications. As with most products of this type, the level of effect of WRDA 35 is governed within limits by the quantity of product used and the specific nature of the concrete mixture.

As a guide to trials, addition rates of 0.4% by weight of cement should be initially evaluated.

Higher dosages should be used for concrete subjected to high ambient temperatures.

Effects of Overdosing

Serious overdosing of WRDA[®]35 will generally produce a concrete with increased workability levels and in certain circumstances, an increase in air content.

This, particularly, in cold weather will be accompanied by retardation of the initial and final set characteristics of the concrete. In such cases however, provided the concrete is properly cured the ultimate strength will generally be slightly higher than that of normal concrete. The effects of overdosing will also be exaggerated when sulphate resisting cement is used to produce concrete.

Dispensing

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment, details of which are available upon request.

Health and Safety

For further information see WRDA 35 SDS (Safety Data Sheet) or consult GCP.

Packaging

WRDA 35 is supplied in nominal 210 litre, non-returnable containers.

Alternatively, 1000 litre IBCs or bulk deliveries can be arranged.

Storage

WRDA 35 should be stored in original containers or suitable closed tanks, preferably out of direct sunlight and protected from extremes of temperature.

Storage Life in Manufacturer's Drums:

12 months from the date of manufacture

Storage Life in Bulk Storage:

12 months from the date of delivery

Technical Service

The Technical Service Department of GCP is available to assist you in the correct and best use of our products. These resources and advice are at your disposal entirely without obligation. Please contact:

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