

WRDA[®] P8

Concrete Plasticiser

Product Description

WRDA[®]P8 is an accelerating plasticiser, or water-reducing agent for concrete and mortar and is based on calcium chloride. It is particularly useful for obtaining high early strength in precast items such as blocks and lintels where no reinforcement is used, etc. especially under conditions of low ambient temperature. The plasticising ingredient of WRDA[®]P8 is fully soluble in the calcium chloride solution and no separation can occur even at low temperatures.

WRDA[®]P8 is formulated from carefully selected raw materials and is manufactured under controlled conditions to give consistent product. It is based on naturally derived materials dissolved in calcium chloride solution and meets the requirements of Type E of ASTM C-494 designation.

Advantages

- WRDA[®] P8 imparts early and ultimate strengths to concrete enabling forms to be stripped sooner and blocks to quickly achieve high lifting strengths. This effect is particularly useful at low ambient temperatures.
- The effective plasticising action of WRDA[®] P8 will give increased workability to most concrete mixes enabling easier placing.
- Water reductions in the region of 10% can be made without adversely affecting the workability with a subsequent increase in strength, impermeability and durability.
- WRDA[®] P8 offers an improvement over most other accelerating plasticisers in that it is a fully compatible system which will not 'seed out' at low temperatures which can lead to blockages of pipe lines and inconsistent results.

Typical Properties

WRDA [®] P8	
Appearance	pale yellow liquid
Specific Gravity	1.34 at 20°C
Air Entrainment	Any additional air entrainment is slight and will rarely exceed 0.7%.
Chloride Content	34% approx. as calcium chloride
Freezing Point	-7°C

Method of Use

WRDA[®]P8 is supplied ready for use. It should be added to concrete mixes during the mixing process, at the same time as the water or the aggregates. It should not be added directly to the cement. No extension of normal mixing time is necessary.

Compatibility with Cements

WRDA®P8 can be used with all types of Portland cement and those containing cement replacement materials.

Compatibility with other Admixtures

WRDA®P8 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: 1.68%–3.36% volume by weight of cement

The performance of WRDA®P8 is best assessed after preliminary tests on site using the actual concrete under consideration to determine the optimum dosage and the effect on properties such as ultimate compressive strength, early rates of strength and shrinkage when these are of consequence.

Warning:

Under no circumstances should additions be made at a higher level than the maximum dosage of 3360 ml WRDA®P8 per 100 kg cement because of possible deleterious effects of excessive calcium chloride.

Effects of Overdosing

Overdosing of WRDA®P8 will generally produce a considerable increase in workability and will shorten the setting and hardening process. Such overdosing is, however, to be avoided because the maximum addition rate of WRDA®P8 is equivalent to approximately 1.4% by weight of anhydrous calcium chloride based on the cement.

This is the level normally advised as being the maximum that should be used in cementitious compositions.

Pre-Stressed and Post-Tensioned

Concrete WRDA®P8 contains calcium chloride and should not under any circumstances be employed in concrete where pre-stressing or post-tensioning of reinforcement is to be used.

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®P8 SDS (Safety Data Sheet) or consult GCP.

Packaging

WRDA®P8 is supplied in nominal 210 litre, non-returnable containers.

Storage

WRDA®P8 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:

GCP

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