

WRDA[®] P8

Concrete Plasticiser

Description

WRDA P8 is an accelerating plasticiser, or water reducing agent for concrete and mortar and is based on calcium chloride. It is particularly largely 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 a consistent product. It is based on naturally derived materials dissolved in a calcium chloride solution and conforms to Type E of ASTM C494 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

Appearance:

Celar 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

Storage life in manufacturer's drums: 12 months from date of manufacture.

Bulk Storage:

12 months from date of delivery.

Compatibility

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

With other admixtures: WRDA P8 should not be pre-mixed with other admixtures. The performance of the material may be affected by the presence of other chemicals.

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.

Addition Rates

Range: 1.68% - 3.36% 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.

As a guide to these trials, an addition rate is recommended of 1680ml-3360ml WRDA P8 per 100kg cement.

Warning:

Under no circumstances should additions be made at a higher level than the maximum dosage of 3360ml WRDA P8 per 100kg 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 over-dosing 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.

Prestressed And Post Tensioned Concrete

WRDA P8 contains calcium chloride and should not under any circumstances be employed in concrete where prestressing 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 Material Safety Data Sheet, or consult Emirates Chemicals LLC.

Packaging

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

Alternatively, bulk deliveries can be arranged.

Storage

WRDA P8 should be stored in sealed conventional containers and protected from the elements.

Technical Service

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

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