

DARAPEL[®] W2

Integral Water Repellent Admixture

Product Description

DARAPEL[®]W2 is a permeability reducing admixture for use in all types of mortar and concrete mixes. It is particularly suitable for use in ready-mixed concrete and all types of structural concrete. It is also usefully employed in precast concretes involving the use of wet concrete, semi-dry concrete and cast stone.

DARAPEL W2 is formulated from carefully selected raw materials and is manufactured under controlled conditions to give a consistent product. It is based on a blend of long chain carboxylic acids to give maximum reduction in permeability without inhibiting side effects. This results from a positive chemical action, which creates a network of insoluble water resistant material within the pores of the cement matrix.

DARAPEL 75ME

Appearance:	Amber Colored Liquid
Specific Gravity	1.01 at 20°C
Chloride Content:	Nil
Freezing Point:	<-5.c

Advantages

- Permeability reduction can be achieved without significant changes in strength.
- DARAPEL W2 can be added by means of an automatic dispenser.
- Precast units, blocks, bricks and in-situ concrete containing this type of admixture have been shown to retain their original clean appearance when exposed to the elements for considerable periods.
- The durability of concrete finishes is increased since the penetration of rain and dew is greatly reduced giving improved resistance to frost damage.
- Aggregate 'mottling' can be prevented in most mixes.
- The reduction in permeability obtained with DARAPEL W2 is long lasting.
- No problems of settlement in storage are encountered.

Method Of Use

DARAPEL W2 is supplied ready for use and may be added to the mix water prior to addition to the aggregate. DARAPEL W2 will not entrain air when used in wet concretes, but will plasticise the mix and cause a significant increase in workability. It is necessary to reduce the free water content of concrete mixes containing DARAPEL W2 to maintain constant workability. If the free water content is not reduced, then an increase in workability will result and there may be some loss in compressive strength. No extension of normal mixing time is necessary

Compatibility with Cements

DARAPEL W2 can be used with all types of Portland, Pozzolan, Blast Furnace cements. It can also be used with fly ash and silica fume.

Compatibility with other Admixtures

DARAPEL W2 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. We recommend GCP be contacted for advice in all such circumstances.

Addition Rates

Range: 1.0 % – 2.0% by weight of cement

The performance of DARAPEL W2 is best assessed after preliminary tests on site using the actual mix under consideration. The material is found to be effective in a wide range of concretes. Because of this range of applications it is difficult to specify a precise level of addition for optimum results to be achieved. Furthermore, the degree of reduction in surface permeability required can be achieved by varying the dosage level which typically lies between 1000ml – 2000ml DARAPEL W2 per 100kg cement.

Effects of Overdosing

Tests have shown that the addition of DARAPEL W2 to concrete mixes at up to double the recommended level of addition causes slight loss in strength and minimal additional air entrainment.

Dispensing

It is preferable that liquid admixtures for concrete 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 the DARAPEL W2 SDS (Safety Data Sheet) or consult GCP.

Packaging

DARAPEL W2 is supplied in 210 litre free, non-returnable containers.

Alternatively, 1000 litre IBCs or bulk deliveries are also available.

Storage

DARAPEL W2 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 date of manufacture

Storage Life in Bulk Storage:

12 months from date of delivery

Technical Service

The Technical Service Department of GCP Applied Technologies 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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