

ADVA[®] 122

High Range Water Reducer / Superplasticiser for General Concrete Applications

Product Description

ADVA[®] 122 is a high range water-reducer intended for use in a variety of concrete applications. It is designed to impart neutral set properties and dramatic improvements in finishing properties to concrete, enabling placement and compaction operations to be carried out efficiently.

It can be used at a range of dosage levels to:

- Reduce Water Content
- Reduce Cement Content
- Increase Compressive Strength
- Increase Consistence

ADVA[®] 122 is based on a synthetic carboxylated polymer formulated with a powerful deflocculant. ADVA[®] 122 conforms to EN 934-2 and is manufactured under controlled conditions to give a consistent product.

Advantages

- ADVA[®] 122 is highly efficient and enables the production of high slump concrete
- ADVA[®] 122 aids cohesion and pumping operations
- ADVA[®] 122 exhibits neutral and predictable retardation characteristics
- ADVA[®] 122 is a finishing enhancer with a combined superplasticising effect which allows for high range water reductions leading to a considerable increase of incompressive strength
- Impermeability and concrete durability are correspondingly improved
- ADVA[®] 122 ensures that any concrete finishing operations are easier and quicker which may reduce delays and improve productivity
- Multi-role capabilities

Typical Properties

ADVA [®] 122	
Appearance	Brown Liquid
Specific Gravity (20°C)	1.085
Alkali Content (eq. Na ₂ O)	1.5%
Chloride Content	Nil
Air Entrainment	1.0 - 2.0% approx.
Freezing Point	0°C

Method of Use

ADVA® 122 is supplied ready for use.

When producing high consistence concrete or concrete of low w/c ratio it is recommended that ADVA® 122 be added in its supplied form with part of the batching water, after the addition of the cementitious component. After the addition of admixture, a further mixing cycle of at least two minutes is suggested to enable the ADVA 122 to efficiently disperse the mix components.

Compatibility

With Cements:

ADVA®122 can be used with most types of Portland cements. It is also effective in concrete containing fly ash or ground granulated blastfurnace slag.

With Other Admixtures:

ADVA®122 is fully compatible with GCP Applied Technologies admixtures normally used in concrete production. Each admixture must be added separately. Individually added, each one will deliver exactly the results desired. However, the performance of the material may be affected by the presence of other chemicals and we would recommend that GCP be consulted in such circumstances.

Addition Rates

Range	400 ml - 1200 ml per 100 kg cement
	0.40 % - 1.20 % (v/w) by wt. of cement
As a guide to trials an addition rate of 0.60 - 0.80 % volume by weight of cement is suggested	
For advice and assistance with trials we recommend that you consult GCP	

As with most products of this type, the magnitude of the effect obtained with ADVA®122 is governed by the quantity of product used, w/c ratio, and specific nature of the concrete and the constituent materials. It is therefore necessary to assess performance under site conditions using actual materials to determine optimum dosage and effect on plastic/hardened concrete properties, such as cohesiveness, consistence retention, set characteristics, early rate of strength gain, ultimate compressive strength and shrinkage when these are of consequence.

Effects of Overdosing

The effect of overdosing ADVA®122 is a function of the degree of overdose.

When producing high consistence concrete, overdosing will increase the level of consistence and may induce the onset of segregation.

Depending on the extent of the overdose, the setting time may also increase, especially if the overdosed concrete is subjected to low ambient temperatures, or if sulphate resisting or cement replacement materials are used.

Any situation where an overdose is suspected, careful inspection of the concrete in its plastic state should be conducted. Pay particular attention to consistency and cohesiveness prior to a decision on the suitability of the concrete for the particular application in question.

Dispensing

It is preferable that the ADVA®122 should be introduced into the mixer by means of automatic dispensing equipment.

Equipment or advice on dispensing can be obtained from GCP.

Health and Safety

For further information on Health and Safety matters regarding this product we recommend that you consult the relevant Safety Data Sheet from GCP.

In line with general chemical handling precautions avoid contact with skin or eyes and protective gloves/goggles should be worn.

Packaging

ADVA®122 is supplied in both 15 and 205 non-returnable drums and 1,000 litre totes.

Alternatively, deliveries can be arranged.

Storage

If possible, ADVA®122 has to be stored away from extremes of temperature and then protected from frost. The product should be kept out of direct sunlight in shaded storage at all times.

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

Our Technical Service department of GCP is available to assist you in the correct use of our performance chemicals.

gcpat.uk | United Kingdom customer service: +44 (0) 1480 478421

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GCP Applied Technologies Inc., 62 Whittemore Avenue, Cambridge, MA 02140 USA.

GCP Applied Technologies (UK) Ltd, Gate St, Dukinfield SK16 4RU.

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