ADVA® 605

High Range Water Reducer/Superplasticiser

Product Description

ADVA® 605 is a new generation liquid high range water reducer/superplasticiser specifically intended for the production of ready-mixed concrete. Designed for use in a wide range of ready mix concrete applications to assist concrete producers in achieving improved economics.

ADVA® 605 is particularly suitable for use in applications where a flexible dose capability is required, for example in the production of volumetric batch-on-site concrete.

ADVA® 605 is based on next generation modified synthetic carbox- ylated polymers and offers concrete products the advantages of the latest advances in concrete technology.

ADVA® 605 conforms to BS EN 934[]2 and is manufactured under controlled conditions to give a consistent product.

Advantages

- ADVA® 605 is suitable for nominal consistence concrete, with improved rheology
- Flexible dosage response so allow a wide range of water-reduction or increased consistence
- Suitable for volumetric batch-on-site concrete production for dispensing and dosing control
- Cost-effective
- Minimal impact on the setting time
- Improved concrete cohesion
- Enhanced pumpability
- Suitable for use in mix designs containing fly ash, ggbs or silica fume
- Dose efficient
- High early and later age strength of concrete

Typical Properties

ADVA® 605	
Appearance	Amber / Straw Liquid
Specific Gravity (20°C)	1.030
Alkali Content (eq.$Na_2$0)	0.50%
Chloride Content	Nil
Air Entrainment	1.0 %
Freezing Point	0°C

Method Of Use

ADVA® 605 is supplied ready for use.

It should be added during the mixing process with part of the water after addition of the cementitious component. After the addition of admixture, a further mixing cycle of at least 2 minutes is suggested to enable ADVA® 605 to efficiently disperse the mix components. Alternatively, and in the case of volumetric applications, it can be added by flow rate within the mixing water.

Compatibility

With Cements :

ADVA® 605 can be used with most types of Portland cements. It is also effective in concrete containing fly ash or ground granulated blastfurnace stag. For use with special cements we recommend you to contact GCP Applied Technologies.

With Other Admixtures:

ADVA® 605 should not under any circumstances be premixed with other admixtures. The performance of the product will be affected by the presence of other chemical admixtures. We recommend that all admixtures be added separately into the mix.

Addition Rates

Range	500 ml -1600 ml per 100 kg cement
	0.50% -1.60% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.70 - 0.90% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

ADVA® 605 is a versatile. high performance product that can be used in a variety of applications. As with most products of this type, the magnitude of the effect obtained with ADVA® 605 is governed by the quantity of product used, w/c ratio, and the specific nature of the conccete and constituent materials. It is therefore best to assess perlormance in preliminary tests using actual materials to determine optimum dosage and effect on the plastic and the hardened concrete.

Effects of Overdosing

The effect of overdosing ADVA® 605 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, an increase in setting time may also occur, especially in low ambient temperatures and/or when employing sulphate resisting cement or cement replacement materials. In 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® 605 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 Applied Technologies. In line with general chemical handling precautions avoid contact with skin or eyes and protective gloves/goggles should be worn.

Packaging

ADVA® 605 is supplied in 15 and 205 non returnable drums and 1,000 litre totes. Alternatively, bulk deliveries can be arranged.

Storage

if possible ADVA® 605 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 date of manufacture.

Storage Life in Bulk Storage:
12 months from date of delivery.

Technical Service

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

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

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gcpat.uk/solutions/products/adva-high-range-water-reducers/adva-605