ADVA® 675

High Range Water Reducer / Superplasticiser with Enhanced Consistence Retention Performance

Product Description

ADVA® 675 is a high performance liquid superplasticiser designed for the production of ready-mixed concrete.

Intended for use in a wide range of concrete applications and as well as a superplasticising effect, ADVA® 675 will also provide extended slump retention properties.

ADVA® 675 offers the greatest slump retention and is particularly beneficial for long or difficult pours where excellent concrete rheology and consistence of up to two hours is required.

ADVA® 675 is based on next generation modified synthetic carboxylated polymers and offers concrete producers the advantages of the latest advances in concrete technology. ADVA® 675 conforms to BS EN 934-2 and is manufactured under controlled conditions to give a consistent product.

Advantages

- ADVA® 675 is especially suitable for producing high workability concrete, with excellent rheology and consistence retention properties
- With suitable mix design ADVA® 675 can be used to achieve extended workability life over normal superplasticisers, even with difficult cements
- High workability flowing concrete can be obtained by incorporating ADVA® 675 into a concrete design for a S2 consistence and/or low water/cement ratio
- Minimal impact on setting time
- Suitable for use in mix designs containing fly ash, ggbs or silica fume
- ADVA® 675 can be used to achieve high range water reduction, leading to considerable increases in compressive strength; impermeability and durability are correspondingly improved

Typical Properties

ADVA® 675	
Appearance	Amber Liquid
Specific Gravity (20 °C)	1.07
Alkali Content (eq.Na_2O)	≤ 1.5 %
Chloride Content	≤ 0.10 %
Air Entrainment	1.0 %
Freezing Point	0 °C

Method Of Use

ADVA® 675 is supplied ready for use.

When producing high workability concrete or concrete of low w/c ratio it is recommended that ADVA® 675 be added in its supplied form with part of the batching water, after the addition of the cementitious component. After the ddition of admixture, a further mixing cycle of at least two minutes is suggested to enable ADVA® 675 to efficiently disperse the mix components.

Compatibility

With Cements :

ADVA® 675 can be used with most types of Portland cements. It is also effective in concrete containing fly ash or ground granulated blastfurnace slag. For use with special cements we recommend contacting GCP Applied Technologies.

With Other Admixtures:

ADVA® 675 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.

As with most products of this type, the magnitude of the effect obtained with ADVA® 675 is governed by the quantity of product used, w/c ratio, and specific nature of the concrete and constituent materials. It is necessary therefore to assess performance under site conditions using actual materials to determine optimum dosage and effect on plastic/ hardened concrete properties, such as cohesiveness, workability 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®675 is a function of the degree of overdose.

When producing high workability concrete, overdosing will increase the level of workability 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.

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

Addition Rates

Range	500 ml -1200 ml per 100 kg cement
	0.50% -1.20% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.40 - 0.70% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

Dispensing

It is preferable that the ADVA® 675 should be introduced into the mixer by means of automatic dispensing equipment. Equipment or advice on dispensing can be obtained from GCP Applied Technologies.

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

Storage

ADVA® 675 if possible be stored away from extremes of temperature and then protected from frost. If the product does become frozen, it should be carefully mixed after thawing out to restore it to its normal state. 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-675