

ADVA[®] Flow 190

High Range Water Reducer / Superplasticiser for Self-Compacting Concrete Applications

Product Description

ADVA[®] Flow 190 is a high performance high efficiency, high range water reducing/superplasticising admixture designed to impart extremely high consistence enabling the production of flowing and self compacting concrete.

The unique formulation of ADVA[®] Flow 190 permits the use of high percentages of ground granulated blastfurnace slag (ggbs) whilst still providing excellent cohesion and extended consistence retention properties. When used at the controlled dosage range will provide consistence retention with minimal variance, across most cement classifications.

Advantages

- ADVA[®] Flow 190 is especially suitable for producing high consistence concrete, with excellent rheology and consistence / flow retention properties
- ADVA[®] Flow 190 will offer controlled consistence retention with minimal variance over time
- Particularly suited for use in concrete containing a high percentage of ground granulated blastfurnace slag
- Minimal impact on setting time
- Improved segregation resistance
- Suitable for use in concrete containing fly ash, ggbs or silica fume
- Dose efficient

Typical Properties

ADVA [®] Flow 190	
Appearance	Amber Coloured Liquid
Specific Gravity (20 °C)	1.05
Alkali Content (eq.Na ₂ O)	≤ 0,10
Chloride Content	Nil
Air Entrainment	≤ 0,10
Freezing Point	0 °C

Method Of Use

ADVA[®] Flow 190 is supplied ready for use.

When producing high consistence concrete or concrete of low w/c ratio it is recommended that ADVA® Flow 190 be added in its supplied form with part of the batching water, after the addition of the cement. After the addition of admixture, a further mixing cycle of at least two minutes is suggested to enable the ADVA® Flow 190 to efficiently disperse the mix components.

Compatibility with Cements

ADVA® Flow 190 can be used with most types of Portland cements, effective in concrete containing fly ash or ground granulated blastfurnace slag. For use with special cements we recommend contacting GCP.

Compatibility with Other Admixtures

ADVA® Flow 190 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	600 ml - 1200 ml per 100 kg cement
	0.60% - 1.20% (v/w) by wt. of cement
As a guide to trials an addition rate of 0.70 - 1.00% volume by weight of cement is suggested.	
For advice and assistance with trials we recommend that you consult GCP Applied Technologies.	

As with most products of this type, the magnitude of the effect obtained with ADVA® Flow 190 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, 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® Flow 190 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 Sulfate-resisting Portland cements 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.

Dispensing

It is preferable that ADVA® Flow 190 be introduced into the mixer by means of automatic dispensing equipment.

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 and Storage

ADVA® Flow 190 is supplied in both 15 or 205 non returnable drums and 1,000 litre totes. Alternatively, bulk deliveries can be arranged. ADVA® Flow 190 should when possible 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.

gcpat.uk | Customer Service: Tel: 01925 855330 Fax: 01925 855350

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