

# **ADVA® FLOOR 250**

# New Generation Flooring Admixture

## **Product Description**

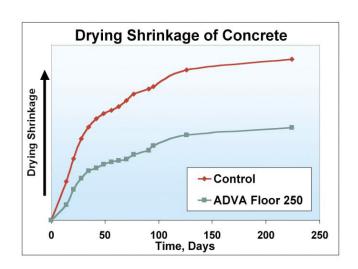
ADVA FLOOR 250 is a new generation flooring admixture, which combines the workability and strength enhancing properties of polycarboxylate technology with proven GCP shrinkage reducing performance.

#### **Technical Data**

ADVA FLOOR 250	
Appearance	green liquid
Specific Gravity	1.00 at 20°C
Air entrainment	nil
Chloride content	nil



- REDUCED CRACKING Long term drying shrinkage is reduced by 40 - 50%, greatly reducing the risk of cracking in floors
- REDUCED CURLING ADVA FLOOR 250 reduces the primary cause of edge curling in floors and remedial overlays
- REDUCED JOINT MOVEMENT For any given bay size, joint opening caused by drying shrinkage will be significantly reduced
- ENHANCED WORKABILITY Depending on dosage, ADVA FLOOR 250 will convert low to medium workability concrete into high workability, easily placed concrete.
- ENHANCED FINISHING Concrete containing ADVA FLOOR 250 has dramatically improved finishing characteristics.
- **NEUTRAL SET** ADVA FLOOR 250 has nearneutral setting time, reducing 'spotty' or variable set
- IMPROVED DURABILITY ADVA FLOOR 250 chemistry allows significant reduction in water to cement ratios, leading to considerable increases in flexural and compressive strength and reduction in permeability.



This unique and patented technology is designed to impart dramatic improvements in workability, finishing properties and ultimate in-place performance of concrete floors. The product is manufactured under closely controlled conditions to give consistent quality. ADVA FLOOR 250 conforms to EN 934-2, tables 3.1 and 3.2; High Range Water Reducing Admixtures and ASTM C494, Type A and Type F admixtures.

## **Addition Rates**

RANGE: 1000 ml-2000 ml per 100 kg cement. (1.0%-2.0% [v/w] by weight of cement).

As with most admixtures of this type, the magnitude of the effects obtained with ADVA FLOOR 250 are governed by dosage used and the specific nature of the concrete and its constituent materials. It is necessary, therefore, to assess performance using site-specific materials to determine optimum dosage and effects on both plastic and hardened concrete properties, such as cohesiveness, workability retention, bleeding, set characteristics, early rate of strength gain, ultimate compressive strength and drying shrinkage when these are of consequence.

As a guide to these trials, a starting dosage level of 1.5% ADVA FLOOR 250 volume/ weight of cementitious material is recommended. For advice and assistance with your trials we would recommend that you consult GCP Technical Services.

### **Compatibility With Cements**

ADVA FLOOR 250 can generally be used with all types of Portland cements. It is also effective in concretes containing pulverised fuel ash or ground granulated blast furnace slag. For use with special cements we recommend that you consult GCP for assistance with mix design and trails.

## Compatibility With Other Admixtures

ADVA FLOOR 250 is fully compatible with other materials normally used in flooring concrete - including; silica fume, shake on toppings, polypropylene fibres such as GCP Cemfiber™, synthetic structural fibres such as STRUX 90/40 and steel fibres - without impeding their performance. Each admixture must be added separately. Individually added, each will deliver exactly the results desired. However, the performance of the ADVA FLOOR 250 may be affected by the presence of other admixtures and we would recommend that GCP be consulted in such circumstances.

#### Method of Use

ADVA FLOOR 250 is supplied ready for use. At concrete plants it should be added after most of the batching water has been added to the cementitious component. After the addition of the ADVA FLOOR 250, a further mixing cycle of at least 2 minutes is recommended to enable ADVA FLOOR 250 to efficiently disperse throughout the mix. When adding ADVA FLOOR 250 to a mix truck on site, the product should be dosed through a calibrated dispensing system. Where steel fibres are also to be added on site, it is recommended that the ADVA FLOOR 250 is added to the truck first and mixed at maximum revolutions for 2 - 5 minutes before the steel fibres are added.

# **Effects Of Over-Dosing**

The effects of accidentally overdosing ADVA FLOOR 250 are a function of the degree of over-dose. When producing high workability concrete, over-dosing will increase the level of workability and may induce the onset of segregation. Depending on the extent of the over-dose, some increase in setting and hardening time may also occur. In any situation where overdosing is suspected, a careful inspection of the concrete in its plastic state should be conducted. Attention should be paid to consistency and cohesiveness, prior to a decision on the suitability of the concrete for the particular application in

#### **Packaging**

ADVA FLOOR 250 is supplied in 205 litre or 1000 litre free, nonreturnable containers. Alternatively, bulk deliveries can be arranged.

### Storage

ADVA FLOOR 250 contains no flammable ingredients. In storage, and for proper dispensing, ADVA FLOOR 250 should be maintained at temperatures above 0 °C (32°F).

**Storage life in manufacturers drums:** 12 months from the date of manufacture.

**Storage life in bulk:** 12 months from the date of delivery.

# Dispensing

It is preferable that liquid admixtures for concrete should be introduced into the mixer by means of automatic dispensing equipment. Such equipment is available from GCP and details will be supplied on request

# **Health and Safety**

See ADVA FLOOR 250 SDS (Safety Data Sheet), or consult GCP Applied Technologies.

#### **Technical Service**

The GCP Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

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