

# ADVA® Flow 555

## New polymer-based superplasticiser for high performance, high durability concrete

### Product Description

ADVA® Flow 555 is a new superplasticiser based on the polycarboxylate ether polymer technology. ADVA Flow 555 superplasticiser is specially formulated to produce high workability, high slump, flowing concrete with enhanced strength and durability. ADVA Flow 555 contains no added chloride and complies with the following specification for chemical admixtures for concrete: BS 5075 : Part 3. One litre weighs approximately  $1.09\text{kg} \pm 0.02\text{kg}$ .

### Dispersion

Based on new comb polymer technology, ADVA Flow 555 is a superior dispersing admixture having a marked capacity to disperse the cement agglomerates normally found in a cement-water suspension. Unlike conventional superplasticisers, which partially rely on electrostatic charge repulsive forces, ADVA Flow 555 efficiently disperses cement particles using a powerful steric repulsion model. This allows for lower dosages and better control.

### Product Advantages

- High flow concrete less susceptible to segregation and bleeding.
- Long flow life with controlled retardation.
- Finishes easily without stickiness, tearing or spotty set characteristics.
- Highly efficient in producing high flow concrete with no loss in strength.
- Easily added with the concrete mix water for rapid batching.

### Applications

ADVA Flow 555 produces concrete with extreme workability characteristics for high slump, flowing concrete. It also allows concrete to be produced with very low water-cement ratios at low or normal slumps. ADVA Flow 555 is ideal for use in any concrete where it is desired to keep the water-cement ratio to a minimum and still achieve the degree of workability necessary to provide easy placement and consolidation. The addition of ADVA Flow 555 will also fluidise concrete making it ideal for tremie concreting or other applications where high slumps are desired.



### Addition Rates

Depending on the application, dosage rates can range from 400 to 1,800mL / 100kg of cementitious material. However, in most superplasticiser applications, 800 to 1,200mL / 100kg of cementitious material will be sufficient. For best results, ADVA Flow 555 should be added with the mix water. At a given water-cement ratio, the slump required for placement can be controlled by varying the addition rate. Should job site conditions require using more than recommended addition rates, please consult your local GCP representative.

## Compatibility with Other Admixtures

ADVA Flow 555 is not compatible with Darex® Super 20, Daracem® and other NSFC-based admixture products. In concrete containing ADVA Flow 555 the use of an air-entraining agent (such as Daravair® or Darex® AEA®) is recommended to provide suitable air void parameters for resistance against freeze-thaw attack. Due to synergistic effects between ADVA Flow 555 and air-entraining agents, the quantity of air-entraining admixture added to concrete containing ADVA Flow 555 may be reduced. Please consult your local GCP representative for dosage guidance.

Most water reducers or water-reducing retarders are compatible with ADVA Flow 555 Superplasticiser as long as they are added separately to the concrete.

Caution should be exercised when using ADVA Flow 555 with a retarder, as excessive retardation can occur if the admixture dosages are too high. Pre-testing of the concrete should be performed to optimise dosages and addition times of these admixtures. The admixtures should not be in contact with each other before they enter the concrete.

## Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product.

## Packaging

ADVA Flow 555 is available in bulk and in 205L drums. ADVA Flow 555 contains no flammable ingredients. It will begin to freeze at approximately 0°C, but will return to full strength after thawing and thorough agitation.

It storage, and for proper dispensing, ADVA Flow 555 should be maintained at temperatures above 0°C.

## Health and Safety

See ADVA Flow 555 Material Safety Data Sheet or consult GCP Applied Technologies.

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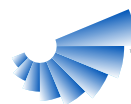
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