

ADVA[®] 108N

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

Product Description

ADVA[®]108N is a new superplasticiser based on the polycarboxylate ether polymer technology. ADVA 108N superplasticiser is specially formulated to produce high workability, high slump, flowing concrete with enhanced strength and durability. ADVA 108N contains no added chloride and complies with the following specifications for chemical admixtures for concrete: BS 5075: Part 3; EN934-2: 2001. One litre weighs approximately 1.06kg ± 0.02kg.

Dispersion

Based on new comb polymer technology, ADVA 108N 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 108N efficiently disperses cement particles using a powerful steric repulsion model. This allows for lower dosages and better control.

Product Advantages

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

Applications

ADVA 108N 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 108N 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 108N will also fluidise concrete making it ideal for tremie concreting or other applications where high slumps are desired.

Compatibility with Other Admixtures

In concrete containing ADVA 108N 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 108N and air-entraining agents, the quantity of air-entraining admixture added to concrete containing ADVA 108N may be reduced. Please consult your local GCP representative for dosage guidance.

Most water reducers or water-reducing retarders are compatible with ADVA 108N Superplasticiser as long as they are added separately to the concrete.

Caution should be exercised when using ADVA 108N 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.



Addition Rates

Depending on the application, dosage rates can range from 200 to 2,000mL / 100kg of cementitious material. However, in most superplasticiser applications, 800 to 1,200mL / 100kg of cementitious material will be sufficient. For best results, ADVA 108N should be added with the mix water. At a given watercement 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.

Dispensing Equipment

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

Packaging

ADVA 108N is available in bulk and in 205L drums. ADVA 108N contains no flammable ingredients. It will begin to freeze at approximately 0°C, but will return to full strength after thawing and thorough agitation.

In storage, and for proper dispensing, ADVA 108N should be maintained at temperatures above 0°C.

Health and Safety

See ADVA 108N Material Safety Data Sheet or consult GCP Applied Technologies.

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