BUILDING TRUST

PRODUCT DATA SHEET

Sika® ViscoCrete®-3055 HE BD

High Performance Superplasticizing Admixture

DESCRIPTION

Imparts very high workability, workability retention and allows a large reduction in water content and gives high early strength.

USES

Sika® ViscoCrete®-3055 HE BD a superplasticizer specially designed for TBM Segment Precast. Also used for free flowing concrete in floors, slabs, foundations, slender components with dense reinforcement, walls and columns and other structural elements. Sika® ViscoCrete®-3055 HE BD is mainly used for the following types of concrete:

- TBM Segment Precast
- High performance concrete
- High strength concrete
- Ready mixed concrete
- Self compacting concrete
- Precast concrete
- Prestressed concrete
- Pumped concrete

FEATURES

Sika® ViscoCrete®-3055 HE BD produces a more uniformly cohesive high quality free flowing concrete Sika® ViscoCrete®-3055 HE BD will result in the following advantages of concrete:

- Improved dispersion properties
- Very high water reduction
- Improved strength and density
- Improved durability
- Improved cohesion properties
- Improved water tightness
- Improved rheology
- Improved flowability
- Reduced drying shrinkage
- Improved workability retention
- Water reduction up to 25-35 % depending on dosage*
- High strength development after 14 hours
- 28 days strength improved by up to 40% over control *

* This will depend on dosage and mix design

CERTIFICATES AND TEST REPORTS

Complies with IS 9103, ASTM C494 Type F, EN 934-2 T 11.1/11.2

PRODUCT INFORMATION

Composition	Modified Polycarboxylate Ether (PCE)
Packaging	Sika® ViscoCrete®-3055 HE BD is supplied in 230 Kg, 1000 Kg or bulk on request.
Appearance and colour	Light brown liquid
Shelf life	12 months from date of production if stored properly in undamaged unopened, original sealed packaging.
Storage conditions	Store in dry conditions at temperatures between +10°C and +40°C. Protect from direct sunlight and frost.
Density	~1.08 kg/l at 25°C

pH-Value	≥ 6
Total chloride ion content	Nil

APPLICATION INFORMATION

Recommended dosage	Standard dosage will vary from 0.5% to 2% by weight of cement. Exact dosage rates are dependent on the quality of cement, aggregates, water/cement ratio and ambient temperature. Therefore, in many cases it is advisable to carry out trial mixes. Higher dosage may be used if agreed by engineer and consultant. Stir well before use.
Dispensing	Sika® ViscoCrete®-3055 HE BD is added to the gauging water or added with it into the concrete mixer. To take advantage of the high water reduction, a wet mixing time, which is depending on the mixing conditions and mixer performance, of at least 60 seconds is recommended. To avoid excess water in the concrete, the final dosage must begin only after 2/3 of the wet mixing time.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

When using Sika® ViscoCrete®-3055 HE BD a suitable mix design has to be taken into account and local material sources shall be trialled.
Sika® ViscoCrete®-3055 HE BD shall not be added to dry cement.
Excessive water addition or overdosing may cause bleeding or segregation.
Frost:
If frozen and / or if precipitation has occurred, Sika® ViscoCrete®-3055 HE BD may be used after thawing slowly at room temperature followed by intensive remixing.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

APPLICATION METHOD / TOOLS

The standard rules of good concreting practice, concerning production and placing, are to be followed.
Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components.
Fresh concrete must be cured properly and curing applied as early as possible.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be mechanically removed.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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