

PRODUCT DATA SHEET

Sika ViscoFlow[®]-4000 (GB)

HIGH RANGE WATER REDUCING/SUPERPLASTICISING CONCRETE ADMIXTURE WITH ENHANCED WORKABILITY RETENTION

PRODUCT DESCRIPTION

Sika ViscoFlow[®]-4000 (GB) is a liquid admixture for concrete based on a unique blend of polycarboxylate polymers technologies. Sika ViscoFlow[®]-4000 (GB) is designed as a high range water reducer or superplasticiser. It is particularly suited for use in concretes that require low water/cement ratios and / or high water reductions with excellent workability retention properties of 4 hours+.

Sika ViscoFlow[®]-4000 (GB) meets the requirements of BS EN 934-2 table.

USES

Sika ViscoFlow[®]-4000 (GB) is a unique product that is suitable for the production of ready mixed concrete

- Applications that require extended and stable consistence retention without delayed setting
- Suitability for use across broad range of consistence classes from S4 – SF3
- High performance concrete
- Self-compacting concrete
- High rise/pumped concrete
- Improved effectiveness in higher ambient temperatures

CHARACTERISTICS / ADVANTAGES

High range water reductions resulting in higher strengths and densities

- Extended consistence retention
- Improved cohesion properties
- Improved early and ultimate strengths
- Excellent placement characteristics
- Improved rheology
- Improved durability
- Reduced segregation and bleeding
- Reduced drying shrinkage
- Reduced mix costs

APPROVALS / STANDARDS

Conforms to the requirements of BS EN 934-2 Tables 3.1 & 3.2

PRODUCT INFORMATION

Packaging	1000 litre IBC
Appearance / Colour	Brown
Shelf Life	12 months from date of production if stored properly in undamaged containers.
Storage Conditions	Store in dry conditions at temperatures between +5°C and +25°C. Protect from direct sunlight and frost.
Density	1.07 kg/l (at +20°C)
pH-Value	Awaiting further testing

APPLICATION INFORMATION

Recommended Dosage	0.3 - 2% by weight of cement
Compatibility	Sika ViscoFlow®-4000 (GB) may be combined with many other Sika products. Important: Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information and advice about any specific combinations.
Dispensing	Sika ViscoFlow®-4000 (GB) should be dispensed through suitable calibrated dosing equipment. Sika ViscoFlow®-4000 (GB) is added to the gauging water or added with it into the concrete mixer.

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 soon as possible.

Notes on Application/Limitations

- When using Sika ViscoFlow®-4000 (GB) a suitable mix design has to be taken into account and local material sources shall be trialled.
- Sika ViscoFlow®-4000 (GB) shall not be added to dry cement.
- Excessive water addition or overdosing may cause bleeding or segregation.
- Support from our Technical Service Department is recommended.

Frost:

If frozen and / or if precipitation has occurred, Sika ViscoFlow®-4000 (GB) may be used after thawing slowly at room temperature followed by intensive remixing.

FURTHER DOCUMENTS

Alkali Content	Awaiting further testing
Chemical Base	Modified polycarboxylate
Freezing Point	+1°C
Air Entrainment	Negligible, minimal increase
Effect on Setting	Extension to setting time dependant on dosage
Effect of Overdosing	Increased workability and segregation

Mechanical / Physical Properties

Consistence Retention - Typical Data

Cement Content Kg/m ³	370
Dose (% BWOC)	0.8
W/C Ratio	0.45
Initial Consistence (mm)	600
1 hr (mm)	620
2 hr (mm)	620
3 hr (mm)	600
4 hr (mm)	590
5 hr (mm)	590

VALUE BASE

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.

LOCAL RESTRICTIONS

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

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related 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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