

PRODUCT DATA SHEET

Sikament® RB 945

(formerly MRheobuild 945)

HIGH RANGE WATER-REDUCING SUPERPLASTICING ADMIXTURE FOR THE PRODUCTION OF RHEOPLASTIC CONCRETE

DESCRIPTION

Sikament® RB 945 is formulated from synthetic polymers specially designed to impart rheoplastic qualities to concrete. A rheoplastic concrete is a fluid concrete with a slump of at least 200 mm, easily flowing, but at the same time free from segregation and having the same water/cement ratio as that of a low slump concrete (25 mm) without admixture. Sikament® RB 945 is suitable for use in hot and tropical climatic conditions.

USES

- Micro silica concrete
- Mass concrete pours
- Ready mixed concrete
- Long-distance concrete pouring
- Pumpable concrete
- Casting in hot climates

PRODUCT INFORMATION

Composition	Sulphonated naphthalene
Packaging	210 L drum, 1000 L flowbin or bulk supply in tanker
Appearance and colour	Dark brown liquid
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +45°C. Protect from direct sunlight. Mix well before use.
Density	~1.16 kg/l (+25°C)
Total chloride ion content	Nil (BS EN 934-2)

FEATURES

- Considerably improves the properties of fresh and hardened concrete
- Reduced thermal peaks
- High workability for longer periods
- Lower pumping pressure
- Delayed setting with longer workability
- Higher ultimate strengths
- Dense concrete, reduced permeability
- Improved durability of concrete

CERTIFICATES AND TEST REPORTS

Sikament® RB 945 follows the requirements of ASTM C494; Type A & F, BS EN 934-2

TECHNICAL INFORMATION

Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using Sikament® RB 945 in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.

APPLICATION INFORMATION

Recommended dosage

Sikament® RB 945 is normally dispensed at a rate of 0.6 – 3.0 litres per 100 kg of total binder. Other dosages may be used, depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the exact dosage as per the project requirements.

Compatibility

Sikament® RB 945 is suitable for mixes containing all types of cement and supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (ground granulated blast furnace slag) and the following Sika products:

- Sika® Plastiment®
- SikaPump®
- Sika® FerroGard®
- SikaFume®
- SikaFiber®
- Sika® Aer
- Sika® Stabilizer
- SikaControl®

We recommend to perform trial mixes to establish the required performance when combining Sikament® RB 945 with the above products or other admixtures, Sikament® RB 945 should not be premixed with any other admixtures. If other admixtures are to be used, those should be dispensed separately. Please consult our Sika Technical Department for further assistance.

Dispensing

Sikament® RB 945 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if Sikament® RB 945 is poured into the concrete mix right after the addition of the first 60–70 % of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

Before pouring, suitability tests on the fresh concrete must be carried out. With high workability mixes take special care that all formwork is properly installed and secured. If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing. When using Sikament® RB 945 a suitable concrete mix must be designed for the local material sources and trial mixes performed to verify suitability. When accidental overdosing occurs the set retarding effect and workability increases along with bleeding. Additional air may also be entrained. During this period the concrete must be kept moist in order to prevent premature drying out.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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ISO 9001, 14001, 45001 – SGS
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ISO 9001, 14001 – TÜV
Sika MB Construction Chemicals LLC
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ISO 9001 – LMS
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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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