

## PRODUCT DATA SHEET

# Sikament® RB 1100 MK

(formerly MRheobuild 1100MK)

HIGH RANGE WATER-REDUCING AND SUPERPLASTICISING ADMIXTURE FOR PRODUCTION OF RHEOPLASTIC CONCRETE

### DESCRIPTION

Sikament® RB 1100 MK is a liquid admixture for concrete based on sulphonated naphthalene. The product may be used to effect substantial water reductions or to produce rheoplastic concrete with normal setting times. Sikament® RB 1100 MK is a chloride free product. Suitable for use in hot and tropical climatic conditions.

### USES

Sikament® RB 1100 MK can be used as a superplasticizer for the production of free flowing concrete for:

- Production of rheoplastic self-compacting concrete with long slump retention periods.
- In complicated formwork or with congested reinforcement.
- Precast concrete.
- Low water/cement ratio concrete
- Slabs
- Foundations
- Walls
- Columns
- Piers

It is also used as a water-reducing agent leading to high early strength concrete for:

- Pre-cast concrete elements
- Pre-stressed concrete
- Bridges and cantilever structures

### FEATURES

Sikament® RB 1100 MK provides the following properties:

- Powerful plasticizing action reduces or eliminates the need of compaction.
- Concrete of similar workability can be produced with 20 - 30 % less water.
- Increased compressive, tensile and flexural strength can be achieved as a benefit of the water reducing properties.
- High early strength can significantly increase mould utilization in precast works.
- Improved cohesion of the concrete mix significantly
- Reduces the risk of segregation and allows greater time for placement.

### CERTIFICATES AND TEST REPORTS

Sikament® RB 1100 MK follows the requirements of ASTM C494; Type A & F and BS EN 934-2

## PRODUCT INFORMATION

Composition	Sulphonated naphthalene
Packaging	210 L drum, 1000 L flowbin or bulk supply in tanker
Appearance and colour	Dark brown/black 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	~1.14 kg/l (+25°C)
Total chloride ion content	Nil (BS EN 934-2)

## TECHNICAL INFORMATION

Concreting guidance	<p>The standard rules of good concreting practice for production and placing must be observed when using Sikament® RB 1100 MK in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage.</p> <p>Use Sika® Antisol® products as a curing agent or apply wet hessian.</p>
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## APPLICATION INFORMATION

Recommended dosage	<p>Sikament® RB 1100 MK is normally dispensed at a rate of 0.6 – 2.3 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 rate required.</p>
Compatibility	<p>Sikament® RB 1100 MK 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:</p> <ul style="list-style-type: none"><li>▪ SikaPump®</li><li>▪ Sika® FerroGard®</li><li>▪ SikaFume®</li><li>▪ SikaFiber®</li><li>▪ Sika® Aer</li><li>▪ Sika® Stabilizer</li><li>▪ SikaControl®</li></ul> <p>We recommend to perform trial mixes to establish the required performance when combining Sikament® RB 1100 MK with the above products or other admixtures. Sikament® RB 1100 MK 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.</p>
Dispensing	<p>Sikament® RB 1100 MK is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if Sikament® RB 1100 MK is poured into the concrete mix right after the addition of the first 70 % of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.</p>

## 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 1100 MK 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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- Sika Saudi Arabia Limited  
- Sika MB Construction Chemicals for Manufacturing LLC  
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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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### Product Data Sheet

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