

PRODUCT DATA SHEET

Sikament® RB 1100

(formerly MasterRheobuild® 1100)

HIGH RANGE WATER-REDUCING CONCRETE ADMIXTURE

DESCRIPTION

The basic components of Sikament® RB 1100 are synthetic polymers which allow mixing water to be reduced considerably and concrete strength to be enhanced significantly, particularly at early ages. Sikament® RB 1100 is a chloride free product.

USES

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

- Slabs
 - Foundations
 - Walls
 - Columns
 - Piers
 - Slender components with dense reinforcement
- 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

CHARACTERISTICS / ADVANTAGES

Sikament® RB 1100 provides the following properties:

As a Superplasticiser:

- Workability is greatly improved
- Concrete is placed easily
- Especially suitable for slender components with densely packed reinforcement
- Concrete requires less vibrating
- Improved cohesion of the concrete mix significantly reduces the risk of segregation and allows greater time for placement

As a Water Reducer:

- Impressive water reduction capability
- Final strength improvement

APPROVALS / STANDARDS

Sikament® RB 1100 follows the requirements of ASTM C494; Type A & F and EN 934-2
BS 5075 Part 1 & 3 (superseded by EN 934-2)

PRODUCT INFORMATION

Chemical Base	Sulphonated naphthalene
Packaging	210 litre drums and 1000 litre IBC's
Shelf Life	12 months from date of production if stored properly
Storage Conditions	Store under cover, out of direct sunlight and protect from extremes of temperature.
Appearance / Colour	Dark brown liquid
Density	1.210
Total Chloride Ion Content	Nil (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 1100 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

0.8 - 1.5 % by weight of binder

Other dosages by weight of binder can 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.

Dispensing

Sikament® RB 1100 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if Sikament® RB 1100 is poured into the concrete mix right after the addition of the first 80% of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.

Alternatively, when using Sikament® RB 1100 to produce flowing concrete at site using ready-mix trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Mix before discharge for 3 minutes at 10rpm to produce a fully homogenous mix.

When using Sikament® RB 1100 to obtain very high early strengths, advantage must be taken of its water reducing properties.

Compatibility

Sikament® RB 1100 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:

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 1100 with the above products or other admixtures. Please consult our Sika Technical Department.

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.
- Internal Reference - Version: MBS_CC-UAE/Rh_1100_10_94/v1/11_13/v2/12_19

LIMITATIONS

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 a suitable concrete mix must be designed for the local material sources and should be trialled.

When accidental overdosing occurs the set retarding effect and workability increases. 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

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.

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.

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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Product Data Sheet
Sikament® RB 1100
October 2023, Version 01.02
02130200000002031

SikamentRB1100-en-ZA-(10-2023)-1-2.pdf