

## PRODUCT DATA SHEET

# Sikament® RB 1121

(formerly MasterRheobuild® 1121)

Retarding Superplasticising admixture for concrete

## DESCRIPTION

Sikament® RB 1121 is composed of synthetic polymers specially designed to impart rheoplastic qualities to concrete.

## USES

- Ready mixed concrete
- Long hauls
- Pumped concrete
- Concrete containing Granulated Slag/ Pozzolans
- Mass concrete pours
- Hot weather concreting

## CHARACTERISTICS / ADVANTAGES

- Reduced thermal peaks
- High workability for longer periods
- Lower pumping pressure
- Resistance to segregation even at high workability
- Extended setting with longer workability
- Reduced water content for a given workability
- Higher ultimate strengths
- Reduced permeability
- Improved durability
- Reduced shrinkage and creep
- Increased ease in finishing concrete
- Provides lower in-place cost

## APPROVALS / STANDARDS

IS 9103, ASTM C-494 Type B,D& G, EN 934-2:  
T11.1/11.2

## PRODUCT INFORMATION

<b>Packaging</b>	275kg drum
<b>Shelf life</b>	12 months from date of production if stored properly in undamaged unopened, original sealed packaging.
<b>Storage conditions</b>	Sikament® RB 1121 must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Sika representative.
<b>Appearance / Colour</b>	Dark brown free flowing liquid
<b>Density</b>	1.20 ± 0.02 at 25°C
<b>pH-value</b>	≥ 6

## APPLICATION INFORMATION

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### Recommended Dosage

Optimum dosage of Sikament® RB 1121 should be determined with trial mixes. As a guide, a dosage range of 400ml to 1200ml per 100kg of cementitious material is recommended as a starting point. In high performance concrete, a dosage up to 1800ml per 100kg of cementitious material can be added subject to prior site trials. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local Sika representative.

For addition information on Sikament® RB 1121 admixture or on its use in developing concrete mixes with special performance characteristics, contact your local Sika representative.

#### Effects of over dosage

A severe over-dosage of Sikament® RB 1121 can result in the following:

- Long extension of initial and final set
- Increase in air entrainment
- Bleed/segregation of mix

A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on form work, and stripping times should be monitored.

In the event of over dosage, consult your local Sika representative immediately.

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### Dispensing

Sikament® RB 1121 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water.

The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of Sikament® RB 1121 to dry aggregate or cement is not recommended.

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### Compatibility

Sikament® RB 1121 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers.

Sikament® RB 1121 is also compatible with slag and pozzolans such as fly ash, metakaolin and silica fume.

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## 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.

## FURTHER DOCUMENTS

### WORKABILITY

Sikament® RB 1121 ensures that rheoplastic concrete remains workable in excess of 2 hours at +25°C. Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability.

It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

### CORROSIVITY – NON CORROSIVE

Sikament® RB 1121 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on

galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of Sikament® RB 1121 admixture. In all concrete application, Sikament® RB 1121 admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

## 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.

## 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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### Product Data Sheet

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