

PRODUCT DATA SHEET

Sikament® RB 820

(formerly MasterRheobuild® 820)

High range, water reducing superplasticiser for rheoplastic concretes

DESCRIPTION

Sikament® RB 820 is synthetic polymers specially designed to impart rheoplastic qualities to concrete. A rheoplastic concrete is a fluid concrete with a slump of at least 200mm, easily flowing, but at the same time free from segregation and having the same water/cement ratio as that of a low slump concrete (25mm) without admixture.

USES

Sikament® RB 820 considerably improves the properties of fresh and hardened concrete.

- Microsilica concrete
- Mass concrete pours
- Ready mixed concrete
- Long-distance transport
- Pumped concrete
- Casting in hot climates

CHARACTERISTICS / ADVANTAGES

- Reduced thermal peaks
- High workability for longer periods
- Lower pumping pressure
- Delayed setting with longer workability
- Higher ultimate strengths.
- Reduced permeability
- Improved durability

APPROVALS / STANDARDS

- ASTM C-494 Type A, B,D, F & G
- BS 5075 Part 1

PRODUCT INFORMATION

Packaging	Sikament® RB 820 is supplied in both in IBC tanks and 210 Liters drum.
Shelf Life	12 months from date of production if stored in unopened, undamaged and original sealed packaging.
Storage Conditions	Sikament® RB 820 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.
Appearance / Colour	Dark Brown Liquid
Specific gravity	1.12 ± 0.02 at 25°C
pH-Value	≥ 6
Total Chloride Ion Content	< 0.2%

APPLICATION INFORMATION

Recommended Dosage

Optimum dosage of Sikament® RB 820 should be determined with trial mixes. As a guide, a dosage range of 800ml to 2000ml per 100kg of cementitious material is recommended as a starting point. In high performance concrete, a dosage up to 2000ml per 100 kg 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.

Compatibility

Sikament® RB 820 is compatible with all cements and most air entraining agents meeting the ASTM standards. The addition of Sikament® RB 820 and SikaControl®-720 AER (air entraining agent) to concrete is recommended where it is required to withstand freezing and thawing cycles.

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 820 ensures that rheoplastic concrete remains workable in excess 3 hours at +20°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 and dry climates.

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.

APPLICATION

Sikament® RB 820 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 concrete after 50 to 70% of the mixing water has been added. The addition of Sikament® RB 816 to dry aggregate or cement is not recommended.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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