

## PRODUCT DATA SHEET

# Sikament® RB 2000 PF

(formerly Rheobuild 2000PF)

Superplasticizer for high performance concrete and a dispersing agent for Sika micro-cements for ground injection

### DESCRIPTION

Sikament® RB 2000 PF is an admixture containing multi-functional, water soluble sulphonated polymers of various chemical composition, specifically affecting the different mineralogical components of cement. When Sikament® RB 2000 PF is added to concrete, the molecules of the polymer, having a negative charge, absorb onto the surface of the cement grains. This causes an electrostatic repulsion to occur amongst the cement grains, making their dispersion in water easier and consequently the mix more flowable. The action occurs even when Portland cement clinker is mixed with other materials (e.g. pozzolans, fly ash, slags and microsilica) in the production of blended cements.

### USES

Sikament® RB 2000 PF is designed for use in the manufacture of high quality concrete, such as:

- Pre-cast concrete tunnel linings, trackbed concrete, segment and structural members cured at normal and elevated temperatures
- Cast in-situ concrete tunnel linings
- Pre-stressed and post tensioned concrete
- Annulus grouts for backfill grouting in tunnels
- Sprayed Concrete
- High early strength, high workability concrete
- To disperse Sika micro-cements for injection applications
- Underwater concrete
- Structural concrete

### CHARACTERISTICS / ADVANTAGES

- Provides high early and ultimate strengths
- Allows the improvement of all hardened concrete properties such as permeability, bond to steel, dimensional stability and durability
- Chloride free (zero added chloride)

### PRODUCT INFORMATION

<b>Packaging</b>	Sikament® RB 2000 PF is supplied in 1000-litre IBC's and 25-litre containers.
<b>Appearance / Colour</b>	Brown liquid
<b>Shelf Life</b>	12 months if stored according to manufacturer's instructions in unopened container.
<b>Storage Conditions</b>	Store in original sealed containers and at temperatures between 5°C and 30°C. 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.

pH-Value	8.0 ± 1
Solubility	Total
Specific gravity	1.24 ± 0.01 g/cm <sup>3</sup>

## APPLICATION INFORMATION

### Mixing Ratio

- Fill the mixer with water.
- Add Sikament® RB 2000 PF.
- Add cement. Mix for 2 minutes.
- Transfer to agitator.

### Consumption / Yield / Dosage (PRINT single line)

#### CEMENT INJECTION

Sikament® RB 2000 PF has been found to be particularly beneficial in dispersing the Sika® micro-cements to allow enhanced penetration properties. In these applications Sikament® RB 2000 PF should be dosed at 1.5 – 2% on cement weight, with a water/cement ratio of 1. This will provide a stable mixture able to penetrate the finest groundmass cracks.

Sikament® RB 2000 PF is generally dosed at 1.5 – 2.0 litres per 100 kg of cement. The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilised in special cases according to specific job conditions. If required consult Sika Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

### Compatibility

Sikament® RB 2000 PF is compatible with all types of Portland, Pozzolanic and Slag cements. As a general rule, Sikament® RB 2000 PF is compatible with all admixtures complying with ASTM and UNI standards. Other admixtures should be dispensed separately into the concrete and not combined with Sikament® RB 2000 PF before addition.

Do not use Sikament® RB 2000 PF with the Sika® Total Consistency Control system without consulting your local representative.

## 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.

## ECOLOGY, HEALTH AND SAFETY

### REGULATION (EC) NO 1907/2006 - REACH

## 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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