

PRODUCT DATA SHEET

Sikament® R-4 P1

HIGH RANGE WATER-REDUCING AND SET RETARDING CONCRETE ADMIXTURE DEVELOPED FOR RMC

DESCRIPTION

A liquid super plasticizing admixture based on selected synthetic polymers especially designed to improve performances of ready-mix concrete in hot weather, for long delivery / placement situations, and for long line of pumping concrete or when delays are anticipated. It has as active water reducing agent that helps promote early high strengths after final set of concrete, and give superb ultimate strengths.

Complies with ASTM C494-92 Type G

USES

Sikament® R-4 P1 as a superplasticizer for flowing concrete in:

- Floor slabs and foundations
- Slender components with densely packed reinforcement
- Walls and columns
- Beams and ceilings

CHARACTERISTICS / ADVANTAGES

Sikament® R-4 P1 provides the following properties:

As a superplasticizer:

- Highly effective without increased w/c ratio or risk of segregation
- Lasting control of slump loss
- No adverse effect on ultimate strengths

As a Water Reducer:

- Early and ultimate strengths significantly increased. Up to 20% water reduction
- Especially suitable for hot climates
- No excessive air entrainment and adverse shrinkage effect
- Increased water tightness and improved surface finish

PRODUCT INFORMATION

Chemical Base	Synthetic dispersion
Packaging	Available in 210 liter drum
Appearance / Colour	Dark brown liquid
Shelf Life	1 year when unopened
Storage Conditions	Store in undamaged original container, protected from direct sunlight at temperature between +5°C and 35°C.
Specific Gravity	Approximately 1.16 kg/L
pH-Value	7 – 9

TECHNICAL INFORMATION

Concrete Mix Design

Concrete shall be designed in accordance with ACI 211.1-89 "Standard recommended practice for selecting proportions for concrete" and shall contain a super plasticizer which shall be Sikament R4-P1 as manufactured by Sika. Should be used in strict accordance with the manufacturer's recommendations.

Improved workability and slump retention
Same W/C 0.48 Temp. 30°C

Recommended Dosage

0.5% - 2.0% by weight of total cementitious binder. Exact dosage rates are dependent on the type of effect sought, quality of cement and aggregates, water/cement ratio and ambient temperature. It is advisable to carry out trial mixes.

Dispensing

Sikament® R-4 P1 can be added separately to the freshly mixed concrete or directly to the mixing water prior to its addition to the aggregates. When added separately to the freshly mixed concrete, further mixing should take place for at least one minute. automatic and accurate dispensing equipment is available from Sika.

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.

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.

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.

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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