

PRODUCT DATA SHEET

Sikament[®]-1 R4

HIGH RANGE WATER-REDUCING AND SET RETARDING CONCRETE ADMIXTURE

DESCRIPTION

Sikament[®]-1 R4 is a highly effective superplasticizer with a set retarding effect for producing concrete in hot climate and also a substantial water reducing agent for promoting ultimate strength. Sikament[®]-1 R4 complies with ASTM C494 type D & G.

USES

Sikament[®]-1 R4 is mainly suitable for the manufacture of concrete for RMC plants and site batch concrete. Sikament[®]-1 R4 is used for the following types of concrete:

- Long hauls concrete
- Concrete pavements
- Slip form
- Foundations
- Floor slabs
- Walls, columns, beams

CHARACTERISTICS / ADVANTAGES

Sikament[®]-1 R4 provides the concrete properties:
As a superplasticizer with set retarding effect:

- Highly effective without increased w/c ratio
- Lasting control of slump loss
- Controlled setting time
- Avoidance of cold joints
- No adverse effect on ultimate strength

As a water reducer:

- Strength significantly increased
- Allow substantial cement reduction compared to plain concrete
- Especially suitable for hot climate
- No excessive air entrainment
- No adverse shrinkage effect
- Improved surface finish

PRODUCT INFORMATION

Chemical base	Bend of Naphthalene Sulfonate
Packaging	200 / 1000 L
Shelf life	12 months if stored properly in original unopened packaging.
Storage conditions	Stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +30 °C.
Appearance / Colour	Liquid / dark brow colour
Density	1.20 – 1.24 kg/l (at 20°C)

TECHNICAL INFORMATION

Concreting Guidance

Concrete placing: With the use of Sikament[®]-1 R4, concrete of highest quality is being produced, however state of the art concrete technology, such as mixing, placing vibrating and curing must be respected and applied.

Curing: Effective measures for concrete curing must be followed.

Specific Advice

Sikament®-1 R4 is added to the gauging water prior to its addition to the dry mix or added separately to the wetted concrete mix.
For optimum utilization of the ultra-high range water reducer we recommend a minimum wet mixing time of 60 seconds.
When adding the balance of the batching water to adjust concrete consistency this should be done after a minimum of 2/3 of the wet mixing time to avoid surplus water in the concrete.

APPLICATION INFORMATION

Recommended Dosage

0.6 – 2.0 L per 100 kg of cement/binder
Typical 0.8 - 1.6 L per 100kg of cement/binder

Compatibility

Sikament®-1 R4 may be combined with all Sikament®, Sika® Aer, Sika® Pump, Sikacrete® PP-1 products, but must be added separately to the mix and not pre-mixed prior its addition.
Sikament®-1 R4 is compatible with all Portland Cement types.

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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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