

PRODUCT DATA SHEET

Sikament[®] R-4 QV CD Star

VERY HIGH RANGE WATER-REDUCING AND SLUMP RETAINING CONCRETE ADMIXTURE

DESCRIPTION

- Sikament[®]-R4QV (CD) is a highly effective dual action liquid superplasticizer for the production of free flowing concrete or as a substantial water-reducing agent for promoting high strength concrete. It imparts excellent slump retention for prolonged periods.
- Sikament[®]-R4QV (CD) is especially suitable for use in concrete mixes containing micro-silica and other pozzolanic materials like GGBS and Fly Ash. This product is suitable for tropical and hot climatic conditions.

USES

- Sikament[®]-R4QV (CD) is used as a superplasticizer in the production of free flowing concrete such as in
- Slabs and foundations.
 - Walls, columns and piers
 - Slender components with densely packed reinforcement.
 - Piles.
- It is also used as a water-reducing agent for production of high early strength concrete such as in
- Precast concrete.
 - Pre-stressed concrete.
 - Bridges and cantilever structures.

CHARACTERISTICS / ADVANTAGES

- Sikament[®]-R4QV (CD) provides the following properties :
- As a super plasticizer
- Workability is greatly improved.
 - Concrete is placed easily, especially suitable in slender components with densely packed reinforcement.
 - Concrete requires less vibrating.
 - Improved cohesion of the concrete mix reduces significantly the risk of segregation and allows greater time for placement.

As a water reducer

- Up to 25% water reduction.
- Final strength improved up to 40% at max. possible water reduction.

APPROVALS / CERTIFICATES

Sikament[®]-R4QV (CD) complies with ASTM C-494 Type G and EN 934-2

PRODUCT INFORMATION

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| Composition | Sulfonated Naphthalene based polymer. |
| Packaging | 1000 lt. flow bins. Bulk supply in tanker trucks is possible on request |
| Appearance / Colour | Brownish |
| Shelf life | 12 months from date of production if stored properly in undamaged and unopened original sealed containers. |
| Storage conditions | 1. Store in dry conditions and at temperatures between +5°C and +35°C. Protect from direct sunlight and frost. 2. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. |
| Density | Approximately 1.245 kg/l (ASTM C-494) |
| Recommended Dosage | Recommended dosage: 0.6 – 2.8 % by weight of cement. Trial mixes must be done to establish the correct dosage. |
| Compatibility | Sikament®-R4QV (CD) may be combined with many other Sika Products particularly <ul style="list-style-type: none">▪ SikaFume®▪ Sika Retarder® and Sika® Retardol-25▪ Sika-Aer®▪ Sika® Ferrogard®901 Trials must be performed before combining products in a concrete mix. Contact our Technical Services Department for information about specific combinations. |
| Dispensing | Sikament®-R4QV (CD) is added to the gauging water at the plant or added on site into the concrete mixer. Allow enough time for the concrete to mix thoroughly. For Ready-mix concrete, Sikament®-R4QV is added to the concrete immediately prior to discharge and there after further mixing must take place for at least three minutes. |

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

- **Transport**
Non-hazardous.
- **Safety Precautions**
Contains material, which may in certain cases cause skin irritation: Cleanliness is required. In case of skin contact, wash thoroughly with soap and water: In case of eye contact, flush with water for 15 minutes, contact a Physician: wash clothing before re-use.
- **Toxicity**
Non-Toxic under relevant health and safety codes.

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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