

PRODUCT DATA SHEET

Sika® Plastiment® RMC 4

High performance retarding plasticiser for concrete

DESCRIPTION

Sika® Plastiment® RMC 4 is a high-performance plasticising retarder, beneficial in maintaining workability especially in high ambient temperatures. Suitable for use in hot and tropical climatic conditions.

USES

- Ready mixed concrete where high workability retention and retardation are highly required.
- Pre-cast concrete
- Hot weather concreting of all types.
- Reduction in permeability, reducing effect of ground-water salts on concrete and steel.
- To improve cohesion, workability and compactability in concretes

FEATURES

- Reduces segregation and bleeding Improves cohesion, workability and compactability in concrete using poorly graded/shaped fine aggregates.
- Reduces placing problems in hot weather by improved workability and workability retention in conjunction with extended setting times
- Improves surface finish
- Improves trowellability
- Reduces honeycombing / cold joint effects
- Improves pumpability of concrete.
- Reduces effects of various modes of attack on concrete and embedded steel by considerable reduction in permeability.

CERTIFICATES AND TEST REPORTS

Sika® Plastiment® RMC 4 follows the requirements of ASTM C494; Types A, B and D and BS EN 934-2

PRODUCT INFORMATION

Composition	High molecular weight refined lignosulphonates and synthetic retarders	
Packaging	210 L drums, 1000 L flowbin or bulk supply in tanker	
Appearance and colour	Dark brown liquid	
Shelf life	12 months from date of production if stored properly	
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +45°C. Mix well before use.	
Density	~1.14 kg/l (+25°C)	
Total chloride ion content	Nil	(EN 934-2)
Freezing point	0°C	

TECHNICAL INFORMATION

Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using Sika® Plastiment® RMC 4 in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.

APPLICATION INFORMATION

Recommended dosage

0.2 - 0.6 % by weight of binder. Other dosages shall be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the appropriate dosage.

Compatibility

Sika® Plastiment® RMC 4 is suitable for mixes containing all types of cement and supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (Ground Granulated Blast Furnace Slag) and the following Sika products:

- Sikament®
- SikaPump®
- Sika®FerroGard®
- SikaFume®
- SikaFiber®
- Sika® Aer
- Sika® Stabilizer
- SikaControl®

We recommend for trial mixes to be performed to establish the required performance when combining Sika® Plastiment® RMC 4 with the above products or other admixtures. Please consult our Sika Technical Department for further assistance.

Dispensing

Sika® Plastiment® RMC 4 is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add Sika® Plastiment® RMC 4 directly to the dry mix. The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after two-thirds of the wet mixing time to avoid surplus water in the concrete.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Sika® Plastiment® RMC 4 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing Sika® Plastiment® RMC 4, they must be dispensed separately.
- When using Sika® Plastiment® RMC 4, a suitable concrete mix must be designed for the local material sources and trial mixes performed to verify suitability.
- With high workability mixes take special care that all formwork is properly installed and secured.
- When accidental overdosing occurs the set retarding effect and workability increases. Additional air may also be entrained. During this period the concrete must be kept moist in order to prevent premature drying out. If properly cured, the ultimate strength of the concrete will not be adversely affected.

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

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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ISO 9001, 14001, 45001 – SGS
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ISO 9001, 14001 – SGS
Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV
Sika MB Construction Chemicals LLC
Sika Construction Chemicals for Manufacturing LLC
ISO 9001 – LMS
Sika MB LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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