

PRODUCT DATA SHEET

Sika® Plastiment®-201 AE

WATER REDUCING AND RETARDING CONCRETE ADMIXTURE

DESCRIPTION

Sika® Plastiment®-201 AE is a water based, liquid, set-retarding admixture that slows the chemical action of cement hydration, delaying the initial set in direct proportion to the dosage used. After the planned delay in initial set, hardening develops at an accelerated rate. Suitable for use in hot and tropical climatic conditions.

USES

Sika® Plastiment®-201 AE is used as a water reducing and set retarding admixture in structural and mass concrete where a controlled extension of setting time is required, such as:

- Large volume pours
- Avoidance of cold joints
- Construction joints without formwork
- Long hauls
- Difficult placing conditions
- At elevated ambient temperatures

PRODUCT INFORMATION

Composition	Aqueous solution of modified carbohydrates
Packaging	200 L drums and 1000 L flow bins
Appearance / Colour	Dark brown
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. Protect from direct sunlight and frost.
Density	~1.10 (+25 °C)
Total chloride ion content	Nil (EN 934-2)

CHARACTERISTICS / ADVANTAGES

Sika® Plastiment®-201 AE provides the following beneficial properties:

- Controlled setting times
- Increased setting time in hot weather
- Accelerated hardening after setting
- Improved workability without increased water content
- Reduced water content without loss of workability
- Increased strengths
- Reduced shrinkage and creep
- Long lasting control of slump loss
- Superior surface finish
- Does not contain chlorides or other steel corrosion promoting ingredients

APPROVALS / CERTIFICATES

Sika® Plastiment®-201 AE follows the requirements of ASTM C494; Types B and D and EN 934-2

TECHNICAL INFORMATION

Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using Sika® Plastiment®-201 AE 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 - 2.0 % by weight of binder

Higher dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements.

Trial mixes must be performed to establish the exact dosage rate required.

Compatibility

Sika® Plastiment®-201 AE may be combined with all types of Portland cement, concretes containing pozzolanic materials such as; GGBS, PFA , micro-silica and the following Sika product ranges:

- Sika® ViscoCrete®
- SikaPlast®
- Sikament®
- Sika Aer®
- SikaPump®
- Sika® FerroGard®-901
- SikaFume®
- SikaFiber®
- Sika Aer®
- Sika® Stabilizer
- Sika®-1 WT

We recommend to perform trial mixes to establish the required performance when combining Sika® Plastiment®-201 AE with the above or other admixtures.

Please consult our Sika Technical Department.

Dispensing

Sika® Plastiment®-201 AE is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant.

Do not add Sika® Plastiment®-201 AE directly to the dry mix. For optimum utilization we recommend thorough mixing at a minimum wet mixing time of 60 seconds. 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.

Restrictions

Before pouring suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured. If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing. When using Sika® Plastiment®-201 AE a suitable concrete mix must be designed for the local material sources and should be trialed.

Significant overdosing will result in increased workability and delayed setting time. During this period of extended setting time the concrete must be kept moist in order to prevent premature drying out. Under dosing will result in reduced workability and shorter setting times.

Sika® Plastiment®-201 AE must not be used together with antifreeze agents. Prolonged storage at temperatures > +35 °C may result in premature deterioration of the product.

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.

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: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd,
Sika Qatar LLC
ISO 14001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd
OHSAS: Sika UAE LLC,
Sika Gulf B.S.C. (c)

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 OHSAS
18001.

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