

Product Data Sheet

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Plastiment®-VZ

Construction

Plastiment®-VZ

Water Reducing and Retarding Concrete Admixture

Product Description

Plastiment®-VZ is a highly efficient set-retarding admixture which temporarily stops the chemical action of 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

Plastiment®-VZ 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
- Elevated temperatures
- Re-vibrated concrete
- Safety (Plastiment VZ merely retards the setting time and will not “kill” the set of cement. It does not entrain air and may be used with confidence even at high dosages).

Characteristics / Advantages

Plastiment®-VZ 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
- Chloride free – does not attack reinforcement

Tests

Approvals / Standards

Plastiment®-VZ complies with ASTM C 494 / C 494 M-04 Types B and D and, EN 934-2

Product Data

Form	Liquid
Appearance / Colour	Brownish
Packaging	200 lt drums and 1000 lt flow bins



Storage

Storage Conditions	Store in a dry area in original packaging at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.
Shelf Life	12 months minimum from production if stored properly in original unopened containers.

Technical Data

Chemical Base	Modified carbohydrates
Density (at 25°C)	~ 1.175 kg/lt
pH Value	7.5 ± 0.5
Chloride content	Nil (EN 934-2)

Application Details

Dosage	<p>0.2 - 2.0% by weight of cement. The retardation rate achieved is directly dependant on the dosage rate which in turn is influenced by quality of cement and aggregates, w/c ratio and temperatures.</p> <p>It is advisable to carry out trial mixes to establish the exact dosage rate required.</p> <p>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.</p> <p>Under dosing will result in reduced workability and shorter setting times.</p>
Compatibility	<p>Plastiment®-VZ is compatible with all types of Portland Cement including sulfate resistant cement.</p> <p>Plastiment®-VZ must not be used together with anti-freeze agents.</p>
Dispensing	<p>Plastiment®-VZ liquid should be dispensed directly into the mixing water or added simultaneously into the concrete mixer.</p>
Concrete Placing	<p>The standard rules of good concreting practice concerning production and placing must be followed. Refer to relevant standards</p>
Curing	<p>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.</p>
Compatibility	<p>Plastiment®-VZ is compatible with all types of Portland Cement including sulfate resistant cement. Plastiment®-VZ must not be used together with anti-freeze agents.</p>
Cleaning of Tools	<p>Clean all equipment and tools with water after use.</p>
Notes on Application / Limitations	<p>When using Plastiment®-VZ a suitable mix design must be selected and local material sources should be trialled.</p> <p>If frozen, gradually thaw and agitate until completely homogenized.</p> <p>Prolonged storage at temperatures > +35°C may result in premature deterioration of the product or packaging.</p> <p>Plastiment®-VZ must not be added to dry cement.</p> <p>Before pouring, suitability tests on the fresh concrete must be carried out.</p> <p>Due to the extended workability, take special care that formwork is properly installed and secured.</p>

Value Base	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 product uses.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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.

All products are manufactured 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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