

PRODUCT DATA SHEET

Sika® Plastiment® PZ 311 RD-G

Retarding type water reducing admixture for improving concrete

DESCRIPTION

Sika® Plastiment® PZ 311 RD-G is a ready-to-use liquid admixture for making better, more uniform concrete. It reduces the quantity of mixing water required to produce concrete of a given consistency while retarding the setting time to facilitate placing and finishing.

Rate of Hardening

The temperature of the concrete mix and the ambient temperature (forms, earth, reinforcement, air, etc.) affect the rate of hardening of the concrete. At higher temperatures concrete hardens more rapidly and may impose problems with placing and finishing of concrete. By varying the dosage of Sika® Plastiment® PZ 311 RD-G, concrete with a more desirable rate of hardening characteristics can be obtained.

A function of Sika® Plastiment® PZ 311 RD-G is to moderately retard the set of concrete. Within the normal dosage range, it will delay the set of concrete containing normal portland cement approximately 1 hour to 5 hours over the setting time of a comparable plain concrete mix depending on job materials and temperatures.

Since setting time is also influenced by the chemical and physical composition of the basic ingredients of the concrete, trial mixes should be made with the job materials approximating job conditions to determine the dosage required for a given degree of retardation.

USES

Sika® Plastiment® PZ 311 RD-G admixture is recommended for use in all types of concrete where moderate to extended retardation of set and improved performance are required or desired such as:

- Large pours to avoid cold joints and reduce thermal cracking
- Long hauls of readymixed concrete
- Hot weather concreting
- Slipform concrete for controlled and predictable setting time
- Precast and prestressed concretes

CHARACTERISTICS / ADVANTAGES

Sika® Plastiment® PZ 311 RD-G admixture aids in the production of concrete with these special properties :

- Mild to extended retardation - depending on dosage
- Reduced water content for a given consistency
- Improved cohesiveness and workability
- Better finishing characteristics
- Plus all the basic benefits of a normal plasticiser
- Increased strength - compressive, flexural and bond of concrete to steel
- Greater economy in a mix for a given strength, slump and air content
- Reduced cracking and permeability - improved watertightness
- Greater resistance to salt water and sulphates
- Increased durability

APPROVALS / STANDARDS

Comply with BS EN 934

PRODUCT INFORMATION

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| Packaging | 205 litre drum or bulk delivery |
| Appearance / Colour | Brownish Liquid |
| Shelf Life | 12 months from date of production |
| Storage Conditions | Store properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost. |
| Specific gravity | 1.070+/-0.02 kg/litre |

APPLICATION INFORMATION

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| Recommended Dosage | Sika® Plastiment® PZ 311 RD-G is recommended for use in the range 350-900 ml per 100kg cement depending on properties required. Where extended set retardation is required or accidental overdosing occurs, addition rates in excess of 900 ml per 100 kg of cement can be used with no adverse effect on the ultimate strength and durability of the concrete providing correct curing procedures are followed. |
| Dispensing | Sika® Plastiment® PZ 311 RD-G can be added into the mixing water, or can be added to the wet concrete after the mixing water has been added. The addition of Sika® Plastiment® PZ 311 RD-G to a dry concrete mix is not recommended. A separate dispenser and feed line must be used. |
| Compatibility | For addition information on Sika® Plastiment® PZ 311 RD-G or its use in developing a concrete mix with special performance characteristic, please consult your local Sika representative. |

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

Sika® Plastiment® PZ 311 RD-G does not contain any hazardous substances requiring labeling. It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc. For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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.

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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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