

# PRODUCT DATA SHEET

## Sika® Plastiment® PR-450

### WATER-REDUCING AND RETARDING CONCRETE ADMIXTURE

#### DESCRIPTION

Sika® Plastiment® PR-450 is used as a concrete plasticizer and retarder where high quality concrete is required in difficult climatic conditions. Suitable for use in tropical and hot climatic conditions.

#### USES

Sika® Plastiment® PR-450 is used for producing high quality concrete in applications such as:

- Ready mixed concrete
- High temperature concreting
- Difficult placing conditions
- Reservoirs and dams
- Sewage works
- Long transportation distances

#### CHARACTERISTICS / ADVANTAGES

Sika® Plastiment® PR-450 provides the following properties:

- Long slump retention at high concrete temperature
- Increased setting time in hot weather
- Reduced water without loss of workability
- Increase strength and durability
- Reduced shrinkage and creep
- Better surface finish
- Economic

#### APPROVALS / CERTIFICATES

Sika® Plastiment® PR-450 follows the requirements of ASTM C494; Types B and D and EN 934-2

#### PRODUCT INFORMATION

<b>Composition</b>	Modified lignosulphonate
<b>Packaging</b>	200 L drum and 1000 L flowbin Bulk supply in tanker trucks is on request
<b>Appearance / Colour</b>	Brown liquid
<b>Shelf life</b>	12 months from date of production if stored properly
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Protect from direct sunlight and frost.
<b>Density</b>	~1.18 kg/l (+25 °C)
<b>Total Chloride Ion Content</b>	Nil (EN 934-2)

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## TECHNICAL INFORMATION

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### Concreting Guidance

The standard rules of good concreting practice for production and placing must be observed when using Sika® Plastiment® PR-450 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.

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## APPLICATION INFORMATION

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### Recommended Dosage

0.3 - 1.0 % 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.

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### Compatibility

Sika® Plastiment® PR-450 may be combined with all types of Portland cement and the following Sika products:

- Sikament® range of superplasticizers
- SikaPump®
- Sika Aer®
- Sika®-1 WT

We recommend to perform trial mixes to establish the required performance when combined with the above products. Please consult our Sika Technical Department.

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### Dispensing

Sika® Plastiment® PR-450 is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant.

Do not add Sika® Plastiment® PR-450 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.

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## IMPORTANT CONSIDERATIONS

When accidental overdosing occurs the set retarding effect and workability increases, however, no excessive amount of additional air will be entrained. During this period the concrete must be kept moist in order to prevent premature drying out.

## 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.

## 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 the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) 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.

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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.

### Product Data Sheet

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