

## PRODUCT DATA SHEET

# Sika® Plastiment® PZ 55 R

(formerly MasterPozzolith® 55R)

## WATER REDUCING AND RETARDING CONCRETE ADMIXTURE

### DESCRIPTION

Sika® Plastiment® PZ 55 R 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® PZ 55 R 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
- Retarded mortars
- Slip formed concrete
- At elevated ambient temperatures

### PRODUCT INFORMATION

<b>Chemical Base</b>	Aqueous solution of modified carbohydrates
<b>Packaging</b>	205 L drums and 1000 L IBC
<b>Shelf Life</b>	12 months from date of production if stored properly in undamaged unopened, original sealed packaging
<b>Storage Conditions</b>	Store in cool and dry conditions at temperatures above 0°C, well ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.
<b>Appearance / Colour</b>	clear to light brown liquid
<b>Specific gravity</b>	1.00 - 1.30

### CHARACTERISTICS / ADVANTAGES

Sika® Plastiment® PZ 55 R provides the following beneficial properties:

- Controlled setting times
- Increased setting time in hot weather
- Accelerated hardening after setting
- Improved workability without increased water content
- 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 / STANDARDS

Sika® Plastiment® PZ 55 R 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® PZ 55 R 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

0.1 - 0.25 % by weight of binder  
Dosages by weight of binder outside this range 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.

### Dispensing

Sika® Plastiment® PZ 55 R is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add Sika® Plastiment® PZ 55 R 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.

### Compatibility

Sika® Plastiment® PZ 55 R 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®
- SikaPlast®
- Sika® ViscoCrete®
- 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® PZ 55 R with the above products or other admixtures. Please consult our Sika Technical Department.

## 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.

## LIMITATIONS

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® PZ 55 R a suitable concrete mix must be designed for the local material sources and trial mixes performed to verify suitability. Significant overdosing will result in increased workability and delayed setting time. During this period of ex-

tended 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.

## 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.

## 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.

## 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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### **Product Data Sheet**

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