

## PRODUCT DATA SHEET

# SikaPlast® PH 8000 PF

(formerly MasterPolyheed® 8000PF)

Superplasticiser for high performance concrete and as a dispersing agent for cements for ground injection

### DESCRIPTION

SikaPlast® PH 8000 PF is an admixture containing multifunctional, water soluble, modified polycarboxylic ether polymers of various chemical composition, thus specifically affecting the different mineralogical components of cement.

When SikaPlast® PH 8000 PF is added to concrete, the molecules of the polymer, having a negative charge, absorb onto the surface of the cement grains. This causes an electrostatic repulsion to occur amongst the cement grains making their dispersion in water easier and consequently the mix more flowable. The action of SikaPlast® PH 8000 PF occurs, even when Portland cement clinker is mixed with other materials (e.g. pozzolans, fly ash, slag & micro silica) in the production of blended cements.

### USES

- Precast Concrete tunnel linings, track-bed concrete, segment and structural members cured at normal or elevated temperatures.
- Cast in-situ concrete tunnel linings
- Pre-stressed and post-tensioned concrete
- Annulus grouts for back-fill grouting in tunnels
- Sprayed concrete
- High early strength, high workability concrete
- For dispersing Sika Microcerete microcements for injection applications
- Underwater concrete
- Structural concrete where early strength are required.

### PRODUCT INFORMATION

Packaging	245kg
Shelf life	12 months from date of production if stored properly in undamaged un-

### CHARACTERISTICS / ADVANTAGES

- Provides for high early and ultimate strengths
- Allows the improvement of all hardened concrete properties such as permeability, bond to steel, dimensional stability and durability.
- Chloride free (Zero added chloride)

### APPROVALS / STANDARDS

ASTM C-494 Type F, EN 934-2: T3.1/3.2, IS 9103: 1999

opened, original sealed packaging.

<b>Storage conditions</b>	SikaPlast® PH 8000 PF must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Sika representative.
<b>Appearance / Colour</b>	Reddish brown liquid
<b>Density</b>	1.12 ± 0.02 at 25°C
<b>pH-value</b>	≥ 6

## APPLICATION INFORMATION

<b>Recommended Dosage</b>	<p>Optimum dosage of SikaPlast® PH 8000 PF should be determined with trial mixes. As a guide, a dosage range of 500ml to 1200ml per 100kg of cementitious material is recommended as a starting point. In high performance concrete, a dosage up to 1800ml per 100kg of cementitious material can be added subject to prior site trials. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local Sika representative. For dosage as microcement injection additive please refer the separate note in the datasheet.</p> <p>As Cement Injection additive</p> <p>SikaPlast® PH 8000 PF has been found to be particularly beneficial in dispersing the Sika Microcrete microcements to allow enhanced penetration properties. In these applications SikaPlast® PH 8000 PF should be dosed at 1% – 2 % on cement weight (with 1.5% being typical), with stable mixture to penetrate the finest groundmass cracks.</p> <p>Mixing</p> <p>The best results are obtained when all the dry components are mixed with 25 – 30% of the water into a stiff homogeneous mixture, followed by the SikaPlast® PH 8000 PF and mixed for 30 – 60 seconds, followed by the rest of the water.</p> <p>For addition information on SikaPlast® PH 8000 PF admixture or on its use in developing concrete mixes with special performance characteristics, contact your local Sika representative.</p>
<b>Dispensing</b>	SikaPlast® PH 8000 PF is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of SikaPlast® PH 8000 PF to dry aggregate or cement is not recommended.
<b>Compatibility</b>	<p>SikaPlast® PH 8000 PF is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers.</p> <p>SikaPlast® PH 8000 PF is also compatible with slag and pozzolans such as fly ash and silica fume.</p>

## 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.

## FURTHER DOCUMENTS

corrosivity – non corrosive  
SikaPlast® PH 8000 PF admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed

on galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of SikaPlast® PH 8000 PF admixture. In all concrete application, SikaPlast® PH 8000 PF admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

workability

SikaPlast® PH 8000 PF ensures that rheoplastic concrete remains workable in excess of 45 minutes at +25°C. Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability.

It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

The use of Sika Antisol, evaporation reducer to prevent quick moisture loss from the surface of the flat works such as pavements in the dry, windy and hot climates is highly recommended.

## 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 Material Safety Data Sheet containing 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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### Product Data Sheet

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