

# PRODUCT DATA SHEET

## Sika® ViscoCrete® PC HRF-1

### HIGH RANGE WATER REDUCER - HWR

#### DESCRIPTION

Sika® ViscoCrete® PC HRF-1 is a new generation, powerful, superplastisizing concrete admixture for demanding concrete applications.

#### USES

Sika® ViscoCrete® PC HRF-1 is suitable for the production of concrete mixes which require high workability, high early strength, high water reduction and off-shutter finish characteristics. It is ideally suited for use in:

- Precast concrete.
- Post tensioned applications.
- High early strength applications.
- High strength concrete.

#### CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete® PC HRF-1 has the following characteristics and advantages:

- Very high water reduction can be used to achieve durability, high early and late-age strengths, improved shrinkage and creep behaviour, lower cement contents and super-workable concrete mixes.
- The neutral-set characteristics provide quicker setting and finishing times, high early strengths and early stripping and demoulding of pre-cast products.

#### APPROVALS / CERTIFICATES

Sika® ViscoCrete® PC HRF-1 meets and exceeds all requirements of Australian Standard 1478.1-2000 for High Range Water Reducer (HWR).

#### PRODUCT INFORMATION

<b>Packaging</b>	10-Litre pail, 205-litre drum or bulk delivery.
<b>Appearance / Colour</b>	Light-brown liquid.
<b>Shelf life</b>	At least one (1) year if stored in accordance with the recommendations given in 'Storage' below.
<b>Storage conditions</b>	Store at temperatures between 5°C and 35°C in unopened, original containers, protected from direct sunlight and frost.
<b>Total Chloride Ion Content</b>	No added chlorides.

#### TECHNICAL INFORMATION

##### Specific Advice

Sika® ViscoCrete® PC HRF-1 is added to the initial batch water. For optimum utilisation of the high water reduction we recommend thorough mixing at minimum wet-mixing time of 60 seconds per cubic metre.

The addition of the remaining gauging water, to fine tune concrete consistency, should only be started after 2/3rds of the wet mixing time, to avoid surplus water in the concrete.

Sika recommend Sika® ViscoCrete® PC HRF-1 be restricted for use in site-batched concrete or for short travel times, because of the early loss of workability.

## APPLICATION INFORMATION

<b>Recommended Dosage</b>	Typical dose rates range from 200-1000ml per 100kg of total cementitious material.
<b>Compatibility</b>	Sika® ViscoCrete® PC HRF-1 can be used in conjunction with the following Sika products: <ul style="list-style-type: none"><li>▪ Sika Plastiment Series</li><li>▪ Sika Rapid</li><li>▪ Sika Ferrogard 901</li><li>▪ Sika Fume</li><li>▪ Sika ViscoFlow</li><li>▪ Sika Retarder</li></ul> All admixtures must be added separately. Trial mixes are necessary to confirm plastic and hardened concrete properties.
<b>Restrictions</b>	<ul style="list-style-type: none"><li>▪ Do not use with naphthalene-based concrete admixtures.</li><li>▪ Do not add to dry cement.</li><li>▪ Trial mixes are necessary to ensure compliance with the required/specified plastic and hardened concrete properties.</li></ul>

### 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.

### LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

### 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.

### 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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