

# Sika<sup>®</sup> ViscoCrete<sup>®</sup> PC HRF-2

## High Range Water Reducer Retarder - HWRRe

Construction

<b>Description</b>	Sika <sup>®</sup> ViscoCrete <sup>®</sup> PC HRF-2 is a third generation High Range Water Reducer Retarder specifically designed for the production of concrete which requires high early strength characteristics and enhanced workability retention
<b>Uses</b>	<p>Sika<sup>®</sup> ViscoCrete<sup>®</sup> PC HRF-2 is suitable for the production of concrete mixes which require extended workability retention , (for a target slump of greater than 160mm the product is capable of maintaining workability within the tolerances set by AS1379-2007 for up to 45 minutes.), high early strength, high water reduction, improved workability and off shutter finish characteristics. It is ideally suited for use in:</p> <ul style="list-style-type: none"><li>▪ Precast concrete (due to the workability retention properties this can also be batched off site)</li><li>▪ Post tensioned applications</li><li>▪ High early strength applications</li><li>▪ High strength concrete</li><li>▪ Self compacting concrete (SCC)</li></ul>
<b>Advantages</b>	<p>Sika<sup>®</sup> ViscoCrete<sup>®</sup> PC HRF-2 effectively achieves the following benefits:</p> <ul style="list-style-type: none"><li>▪ High density and impermeable concrete through high water reduction.</li><li>▪ Improved workability and finishability.</li><li>▪ Improved shrinkage and creep behaviour.</li><li>▪ Accelerated setting characteristics</li><li>▪ Pronounced increase in the early strength development.</li><li>▪ Increased characteristic strengths.</li><li>▪ Increased durability of the concrete</li><li>▪ Optimised cement utilisation</li></ul>
<b>Storage and Shelf life</b>	Stored at temperatures between 5°C and 35°C in unopened original containers protected from direct sunlight and frost, shelf life is at least one (1) year.
<b>Application</b>	
<b>Dosage</b>	<p>Typical dosage rates range from 200 – 1000ml per 100kg of total cementitious material.</p> <p>Optimum dosage depends on the type of concrete, site conditions, mix proportions, ingredients and desired plastic and hardened concrete properties. Laboratory and/or field trials are essential in determining the optimum dosage.</p>
<b>Mixing</b>	<p>Sika<sup>®</sup> ViscoCrete<sup>®</sup> PC HRF-2 is added to the initial batching water. For optimum utilisation of the high water reduction we recommend thorough mixing at a minimal wet mixing time of 60 seconds per cubic meter.</p> <p>The addition of the remaining gauging water, to fine tune concrete consistency, should only be started after 2/3 of the wet mixing time, to avoid surplus water in the concrete.</p>
<b>Specification Type</b>	<p>Sika<sup>®</sup> ViscoCrete<sup>®</sup> PC HRF-2 meets and exceeds all requirements of Australian Standard 1478.1-2000 for High Range Water Reducer Retarder Type (HWRRe).</p> <p>Queensland Government Department of Main Roads approved.</p>

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## Technical and Physical Data

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<b>Form</b>	Aqueous solution of modified polycarboxylates
<b>Colour</b>	Light brown
<b>Chloride Content</b>	No added chlorides
<b>TEA Content</b>	Does not contain TEA
<b>Air Entrainment</b>	May slightly increase air content of concrete
<b>Packaging</b>	20 litre pail 205 litre drum Bulk deliveries

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## Important Notes

- Sika® ViscoCrete® PC HRF-2 can be used in conjunction with the following Sika products SikaMix, SikaRapid, Sika FerroGard-901, Sika Control PLUS. All admixtures must be added separately and trials are recommended before use.
  - For self compacting concrete it is necessary for the concrete mixes to be designed to specifically satisfy the required flow and cohesive characteristics (contact our Sika Technical Department).
  - As with all concretes it is essential to protect mixes containing Sika® ViscoCrete® PC HRF-2 from water evaporation during the crucial early age period. We recommend the use of Sika Film or Antisol curing membranes for this purpose.
  - Do not use with naphthalene based admixtures.
  - For additional information, please contact your local Sika Representative.
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## Handling Precautions

- Avoid contact with eyes and skin.
  - Wear protective gloves and eye protection during work.
  - If skin contact occurs, wash skin thoroughly.
  - If in eyes, hold eyes open, flood with warm water and seek medical attention immediately.
  - A full Material Safety Data Sheet is available from Sika on request.
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## Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

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