

# Sika<sup>®</sup> Set Accelerator

## AC – Accelerator

Construction

<b>Description</b>	Sika <sup>®</sup> Set Accelerator is an accelerator designed for the premixed concrete industry. SikaSet <sup>®</sup> Accelerator contains calcium chloride.
<b>Uses</b>	<p>Sika<sup>®</sup> Set Accelerator improves the plastic and hardened properties of concrete such as workability, compressive and flexural strengths and freeze-thaw resistance. It is a chloride base material, compatible with air entraining agents, but should be dispensed separately into the concrete mix. It can be used for:</p> <ul style="list-style-type: none"> <li>• Cold weather concreting.</li> <li>• Structural concrete.</li> <li>• Concrete blocks.</li> <li>• Concrete pipe and many pre-cast items.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Reduces initial set.</li> <li>• Provides high early strength for fast form stripping.</li> <li>• Cuts construction cost – no cold weather delays.</li> <li>• Increases the concrete density.</li> <li>• Minimises bleeding and segregation</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 is between 1000 to 2000mls per 100kg of total cementitious material. Optimum dosage should be determined by site trials.</p> <p>For temperatures 4°C to 16°C add to concrete at the rate of 1000 to 2000ml per 100kg of total cementitious material, depending upon the amount of acceleration desired in the field.</p> <p>For temperature below 4°C, heat aggregate and use warm water. In all cases follow the APMCA Cold Weather Recommendations for Concreting.</p> <p>For temperatures above 16°C, Sika<sup>®</sup> Set Accelerator dosage may be reduced but in no case should it be below 1000 per 100 kg of total cementitious material.</p>
<b>Mixing</b>	<p>Add SikaSet<sup>®</sup> Accelerator with water and aggregate to the premix truck, but do not dispense onto dry cement.</p> <p>If temperatures are above 16°C it may be advisable to add the accelerator on site, direct to the premix truck. Allow 5 minutes mixing before commencing to discharge.</p>
<b>Application Method</b>	Ready-mix concrete with Sika <sup>®</sup> Set Accelerator added is mixed at the concrete batching plant and transported to site in premixed trucks. Concrete should be placed according to good concrete practices and proper curing procedures should take place.
<b>Specification Type</b>	Sika <sup>®</sup> Set Accelerator meets and exceeds all requirements of Australian Standard 1478.1-2000 for Accelerator Admixture (Ac).

**Technical Data (Typical)**

<b>Form</b>	Liquid solution of calcium chloride		
<b>Colour</b>	Clear		
<b>Density (20°C)</b>	1.34 kg/litre approx.		
<b>pH Value (20°C)</b>	9.0 ± 1.0		
<b>Chloride Content</b>	1000 ml contains 300 g chloride ion approx.		
<b>TEA Content</b>	Does not contain triethanolamine		
<b>Air Entrainment</b>	Does not affect air content of concrete		
<b>Packaging</b>	20 litre pail 205 litre drum Bulk deliveries		
<b>Typical Design</b>	Temperature Cement Fine Aggregate Coarse aggregate Water added Sika® Set Accelerator	Mix 1 (16°C) 265 900 1020 156 1000ml/100kg cement	Mix 2 (5°C) 265 900 1020 156 1000ml/100kg cement
<b>Typical Result</b>	Slump (AS1012.3.1) Air Content (AS1012.4.2) Compressive Strength 7 days (AS1012.9) Compressive Strength 28 days (AS1012.9) Initial Set (AS1012.18)	80mm 2.3% 25.8 32.9 3 hr 32 min	90mm 2.6% 27.9 35.6 3 hr 8 min
<b>Important Notes</b>	<ul style="list-style-type: none"> <li>Do not dispense directly onto dry cement.</li> <li>When using SikaSet® Accelerator site and laboratory trials are always recommended.</li> <li>When using with other admixtures check compatibility first.</li> <li>For further information please contact your local Sika Representative.</li> </ul>		
<b>Handling Precautions</b>	<ul style="list-style-type: none"> <li>Avoid contact with skin and eyes.</li> <li>Wear protective gloves and eye protection during work.</li> <li>If skin contact occurs, wash skin thoroughly.</li> <li>If in eyes, hold eyes open, flood with warm water and seek medical attention without delay.</li> <li>A full Material Safety Data Sheet is available from Sika on request.</li> </ul>		
<b>Important Notification</b>	<p>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 Technical Data Sheet for the product concerned, copies of which will be supplied on request.</p> <p>PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.</p>		