

# Sika FerroGard<sup>®</sup> 903

## Corrosion Inhibitor Impregnating

Construction

<b>Description</b>	Sika FerroGard 903 is an amino-alcohol based corrosion inhibiting aqueous impregnation for concrete. Sika FerroGard 903 penetrates the concrete and has an affinity with the surface of the reinforcement steel.
<b>Uses</b>	<p>Sika FerroGard 903 is used as a corrosion protection of steel reinforced concrete structures, above and below ground. It is also used during the repair and maintenance of reinforced concrete structures, as a treatment of reinforcing steel which is corroding, or is in danger of corroding, in areas without any visible concrete defects.</p> <p>Due to its properties, Sika FerroGard 903 is suitable for extending the service life of aesthetically valuable fair faced concrete.</p>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Sika FerroGard 903 is used to influence the anodic and cathodic reaction of the reinforcing steel in concrete. The product forms a film on the steel surface which delays the onset of corrosion and reduces the rate of corrosion.</li> <li>• It acts as corrosion protection for embedded reinforcing steel, especially from the influences of chloride ions.</li> <li>• Retards the destructive influences of reinforcement corrosion in concrete.</li> <li>• It does not change the appearance of the concrete.</li> <li>• The water vapour diffusion capability is not altered.</li> <li>• It provides an economical extension of the service life of reinforced concrete structures.</li> <li>• Easy and economical to apply.</li> </ul>
<b>Test Reports</b>	Wolfseher & Partner, Mineral Technologies Investigation, Report No. 96.144.11
<b>Storage and Shelf Life</b>	Stored in unopened original containers in cool conditions, the shelf life, from the date of production, is at least 18 (eighteen) months.
<b>Specification – Corrosion Inhibitors</b>	<p>The corrosion inhibitor should be a non-toxic, amino alcohol based impregnation, such as Sika FerroGard 903. The material should be a transparent liquid, and should not change the appearance of the concrete when applied.</p> <p>The corrosion inhibitor should be applied at a minimum consumption rate of 0.5kg/m<sup>2</sup> (total) by brush, roller or low pressure spray. The material should be applied in 3 to 5 coats. Before applying subsequent coats, the previous coat of Sika FerroGard-903 should be allowed to absorb into the concrete (allow 2 to 6 hours)</p>
<b>Instructions for Use</b>	
<b>Surface Preparation</b>	<p>Substrate must be free from dust, dirt, oil and grease. Efflorescence and old coatings must be removed. Cleaning should be done using a high pressure water jet.</p> <p>The best impregnation results are obtained on dry absorbent structures.</p>
<b>Mixing</b>	Sika FerroGard 903 is supplied ready to use. No mixing is required.
<b>Application</b>	<p>Sika FerroGard 903 must be applied to saturation by brush, roller or low pressure hand-spray equipment. The number of coats to be applied depends on the absorbency of the substrate, but normally 3-5 coats are required. The material has 'soap suds' appearance when applied to the substrate.</p> <p>It is recommended that to improve the penetration speed of Sika FerroGard 903, the treated concrete substrate should be wet down once or twice 2 days after application.</p> <p>If there are no further coatings or repair mortars to be applied, the fair faced concrete can be cleaned with high pressure waterjet (100 to 150 bar) at least 3 days after application if required for aesthetic purposes.</p> <p>Sika FerroGard 903 should be applied in temperatures between 5°C and 40°C (both substrate and air).</p>



<b>Cleaning</b>	Use water to clean all tools.
<b>Further Coatings</b>	
<b>Sikagard Coatings</b>	<p>If substrates treated with Sika FerroGard 903 are to be overcoated, the following procedures must be observed.</p> <ul style="list-style-type: none"> <li>• At least 2 days after the application of Sika FerroGard 903, the areas treated must be wetted down once or twice with clean water. Let dry for at least 3 days.</li> <li>• Wash down thoroughly with a high pressure water jet (100 to 150 bar) and rinse carefully. Let dry for at least 3 days.</li> </ul>
<b>Cementitious Products</b>	<p>If cementitious repair mortars are required after treating a substrate with Sika FerroGard 903, the following procedures must be observed.</p> <ul style="list-style-type: none"> <li>• Let area treated with Sika FerroGard 903 dry (allow 1 to 3 days).</li> <li>• Rinse treated areas with high pressure water jet (100 to 150 bar).</li> <li>• Use SikaTop-110 EpoCem as the bonding agent for the Sika Cementitious Repair Mortar.</li> </ul>
<b>Technical Data (Typical)</b>	
<b>Form</b>	Transparent liquid
<b>Density</b>	1.13 kg/l
<b>Viscosity</b>	25 mPa.s
<b>Colour</b>	Clear
<b>pH-value</b>	11
<b>Application Temperature</b>	5°C to 40°C (substrate & ambient)
<b>Consumption</b>	0.3-0.5 l/m <sup>2</sup> total (depends on substrate porosity) Minimum total quantity to be applied not less than 0.30 l/m <sup>2</sup>
<b>Important Notes</b>	<ul style="list-style-type: none"> <li>• Sika FerroGard 903 should not be used if the chloride content at reinforcement depth is higher than 2% (by weight of cement). Optimum results are achieved if chloride content at reinforcement depth is up to 1% by weight of cement.</li> <li>• Visible concrete defects (eg. spalling, cracks) must be repaired using conventional repair methods.</li> <li>• Do not apply Sika FerroGard 903 directly to exposed steel reinforcement.</li> <li>• Depending on the substrate conditions, the application of Sika FerroGard 903 may lead to a slight darkening of the surface.</li> <li>• These materials, if found adjacent to the concrete surface to be treated, should be covered before application: brick, natural stone, aluminium, zinc, copper, surface coatings. If in any doubt, contact Sika's Technical Department for details.</li> </ul>
<b>Handling Precautions</b>	<ul style="list-style-type: none"> <li>• Use only in well ventilated areas. Wear goggles and rubber gloves.</li> <li>• Do not dispose of products into soil or waterways, stormwater or sewers.</li> <li>• A full Material Safety Data Sheet is available from Sika upon 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>