

Product Data Sheet
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Sika® FerroGard®-901

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Corrosion inhibiting concrete admixture

Product Description

Sika® FerroGard®-901 is a liquid concrete admixture based on Sika® FerroGard® Technology for use in reinforced concrete and mortar. It acts as a corrosion inhibitor for the steel reinforcement. By using Sika® FerroGard®-901, the life expectancy and durability will be substantially increased.

Uses

Sika® FerroGard®-901 is designed for reinforced concrete particularly at risk of corrosion. It specifically provides protection from chloride induced corrosion.

Typical uses are in:

- Concrete roads.
- Bridges.
- Tunnels.
- Retaining walls.
- Industrial plants.
- Multi storey car parks.

Characteristics / Advantages

By using Sika® FerroGard®-901 both the anodic and cathodic reactions of the electrochemical corrosion process are reduced. The product forms a film on the steel surface which delays the onset of corrosion and also reduces the rate of corrosion.

Sika® FerroGard®-901 is a combination of organic corrosion inhibitors.

The following advantages can be achieved using Sika® FerroGard®-901:

- Corrosion protection for embedded reinforcing steel, especially from chloride attack.
- Protection from the destructive influences of reinforcement corrosion
- No negative influences on the properties of both the fresh and the hardened concrete.

Sika® FerroGard®-901 is neutral to hydrogen embrittlement of prestressed steel i.e. it neither enhances nor limits hydrogen embrittlement of prestressing steel.

Product Data

Form

Appearance / Colour Liquid green

Packaging 25 and 200 litre drums.



Storage	
Storage Conditions / Shelf life	12 months from date of production if stored properly in undamaged and unopened, original sealed containers at temperatures between +1°C and +35°C. Protected from direct sunlight and frost.
Technical Data	
Chemical Base	Nitrogen containing organic and inorganic substances.
Density	1.06 kg/l
pH-Value	10 ± 1
System Information	
Application Details	
Dosage	Recommended dosage: 12 kg/m ³ concrete.
Application Conditions / Limitations	
Compatibility	<p>Sika® FerroGard®-901 may be combined with the following Sika® products:</p> <ul style="list-style-type: none"> - Sikament® superplasticisers - Sika® Fro-V5-A - Sika® Retarder <p>Pre-trials are always recommended for these high performance concrete mix designs to confirm the desired application and performance characteristics etc.</p>
Application Instructions	
Mixing	<p>Sika® FerroGard®-901 is mixed with the gauging water or added at the same time into the concrete mixer. It may also be added to the concrete in the transit mixer at the point of discharge. In this case, an additional mixing time of at least 1 minute per m³ concrete must be observed. Before discharging it, check the concrete visually for uniform consistency.</p> <p>The quantity of Sika® FerroGard®-901 in the mix design should be taken into consideration when determining the quantity of water for a specific W/C ratio.</p> <p>Sika® FerroGard®-901 is <i>not</i> to be mixed with dry cement.</p>
Application Method / Tools	When using Sika® FerroGard®-901, high quality concrete is normally being produced. General rules of good concrete manufacturing- and placing practice must be observed. Correct curing of the concrete must also be carried out.
Notes on Application / Limitations	Frozen Sika® FerroGard®-901 may be used again after slow thawing at room temperature and intensive stirring.
Notes	All technical data stated in this Product Data Sheet is 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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety Information

Protective Measures Wear goggles and protective gloves. If contact with skin wash with soap water. If contact with eyes or mucous membranes flush immediately with plenty of warm water and seek medical attention without delay.

Ecology

Transportation Class

Important Notes Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the Material Safety Data Sheet.

Toxicity

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 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 to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or access on the internet under www.sika.co.za.



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