

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 180 kg drums



Storage

Storage Conditions / Shelf life 18 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/m³ concrete.

Application Conditions / Limitations

Compatibility Sika® FerroGard®-901 may be combined with the following Sika® products:

- Sikament® superplasticisers
- Sika® Fro-V5-A
- Silicafume® based products of the Sikacrete® / Sikafume® types
- Sika® Retarder and Sika® Retardol-25

Pre-trials are always recommended for these high performance concrete mix designs to confirm the desired application and performance characteristics etc.

Application Instructions

Mixing 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.

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.

Sika® FerroGard®-901 is *not* to be mixed with dry cement.

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.

Value Base 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 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 For information and advice on the safe handling, storage and disposal of chemical products, users should 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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