

Sika® FerroGard®-903

Corrosion Inhibiting Impregnation

Description	<p>Sika FerroGard-903 is a corrosion inhibiting, aqueous impregnation for concrete. Sika FerroGard-903 penetrates the concrete by liquid and vapour diffusion.</p> <p>Sika FerroGard-903 has a high affinity to steel and forms a protective film on the steel surface.</p>
Uses	<ul style="list-style-type: none"> ■ As prophylactic corrosion protection of steel reinforced concrete structures above and below ground. ■ During repair and maintenance of reinforced concrete structures, as treatment of reinforcing steel which is corroding, or susceptible to being corroded in areas without any visible concrete defects. <p>Due to its properties Sika FerroGard-903 is especially suitable to extend the service life of aesthetically valuable fair faced concrete.</p>
Advantages	<ul style="list-style-type: none"> ■ Does not change the appearance of the concrete texture ■ Does not alter the water vapour diffusion capability ■ Economical extension of the service life of reinforced concrete structures ■ Uncomplicated, economical application
Test report	<p>Mott MacDonald, Evaluation of Sika FerroGard, Ref. 26'063/001 Rev. A April 1996. Wolfseher & Partner, Materials Technological Investigation, Report No. 96.144.11 and Report No. 98.115.11.</p>



Technical Data

VOC data	VOC content (ready to use) not exceeding 180 gm/litre [Type of regulated paint under the Air Pollution Control (volatile organic compounds) Regulation of Hong Kong: (rust preventative coatings)].
Colour	Transparent liquid
Density (20°C)	1.13 kg/l
Viscosity (20°C)	25 mPas · s
pH-Value	11
Storage / Shelf life	Stored in unopened original containers in cool conditions, shelf life is at least 18 months from date of production.
Packaging	20 kg pails 200 kg drums

Application

Application temperature	Substrate and ambient temperature min. +5°C, max. +35°C.
Substrate	<p>Free from dust, dirt, oil, grease, efflorescence, old coatings. Cleaning preferably by high pressure water jet. Best results will be obtained on dry, absorbent substrates.</p> <p>The requirements for substrates treated with Sika FerroGard-903 which are to be over coated later must be observed carefully.</p>
Consumption	<p>Total consumption 0.300 - 0.500 kg/m², depending on permeability of concrete.</p> <p>Minimum total quantity to be applied not less than 0.300 kg/m².</p> <p>There are no restrictions with regard to waiting times between coats of Sika FerroGard-903.</p>
Application procedure	<p>The number of coats to be applied depends on the absorbency of the substrate.</p> <p>Normally 3 - 5 coats are needed to apply a total of 400 gr/m² which are required.</p>
Application	Sika FerroGard-903 is supplied ready for use and may not be diluted. The product must be applied to saturation by brush, roller or low pressure hand-spray equipment. If possible do not apply in direct sunshine.
Rain resistance Freezing point	<p>Sika FerroGard-903 may not be applied if frost or rain is expected.</p> <p>Necessary drying time is approx. 6 hours.</p>
Finishing	<ul style="list-style-type: none">■ To improve penetration speed, concrete substrates treated with Sika Ferrogard-903 may be wetted 1- 2 times 2 days after the application.■ In case of high aesthetic demands on fair faced concrete (e.g. facades) the treated surfaces must be cleaned by high pressure water jetting (~ 100 bar) within 2 days (or later) after the wetting mentioned above.

Overworkability

Overworking with coatings/ hydrophobic agents:

If areas treated with Sika FerroGard-903 are to be overcoated, the following procedure has to be observed:

- 2 days after the application of FerroGard-903 (or later), the treated areas must be wetted once or twice with water (sprayed) and then left to dry for at least three days. Afterwards, wash down thoroughly with high pressure water jet (100 - 150 bar) and rinse carefully. Let dry for at least 3 days.

Now you can overcoat with following coatings, taking into consideration the respective substrate conditions:

- Sikagard-705L S or Sikagard-701 W or Sikagard-706 Thixo
- Sikagard-Lasur W, Sikagard ElastoColor W
- Sikagard-545 W Elastofil and/ or Sikagard-550 W Elastic (with either Sikagard-551 S or Sikagard-552 W Primer).

Overworking with cementitious products:

1. Patch repair

Let areas treated with Sika FerroGard-903 dry for 1 - 3 days.

Rinse areas to be repaired with high pressure water jet (approx. 80 bar). As bonding agent for cementitious repair mortars only SikaTop Armatec-110 EC may be used.

2. Poresealing of whole areas

Let areas treated with Sika FerroGard-903 dry for 1 - 3 days.

Wet with water and let dry again. Clean with high pressure water jet (approx. 80 bar). Use exclusively Sikagard-720/721 EpoCem or Sika MonoTop-107, or, where required, Sikagard-545 Elastofill as cementitious sealers.

After treatment

Fair faced concrete (e.g. facades) with high aesthetic requirements must be cleaned with high pressure water jet (approx. 100 bar) after three days or later.

Cleaning

Use water to clean implements.

Limitations

Sika FerroGard-903 should not be used, if the chloride content at reinforcement depth is higher than 2% (by weight of cement). Optimum results with Sika FerroGard-903 can be achieved if the chloride content at reinforcement depth is up to 1% by weight of cement.

Visible concrete defects (spalling, cracks) must be repaired using conventional repair methods (removal of damaged concrete, treatment of reinforcement, reprofiling).

Depending on substrate conditions, the application of Sika FerroGard-903 may lead to a slight darkening of the surface. Absorbent adjacent parts of the structure to be treated (brick, natural stone) as well as metals (especially aluminium, zinc, copper), also laquers/coatings must be protected.

The surface treatment has to be executed with cold water.

Safety Instructions

Safety precautions

Only use in well ventilated areas. Wear goggles and rubber gloves.

Ecology

The product is a light water contaminant. Do not dispose of into soil or waters but according to local regulations.

Toxicity

Non-toxic under the relevant Swiss Health and Safety Codes.

Transport

Non-hazardous.

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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ISO 9001 : 2008 Certificate No.: CC 446
ISO 14001 : 2004 Certificate No.: CC 2042

The product is manufactured under a HKQAA ISO 9001 / ISO 14001 certified quality / environmental management system.

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