

# PRODUCT DATA SHEET

# Sika® FerroGard® CI 210

(formerly MasterLife® CI 210)

Concrete Penetrating Corrosion Inhibiting Admixture

#### **DESCRIPTION**

Sika® FerroGard® CI 210 is highly effective, concrete penetrating corrosion inhibiting admixture, that when added to fresh concrete, protects the reinforcing steel against chloride attack, carbonation and other aggressive agents, thereby increasing the durability of the concrete structure

Mechanism of Action

Sika® FerroGard® CI 210 , by nature of its chemical composition, has an enhanced rate of diffusion through concrete and high affinity for the reinforcing steel. This allows it to adsorb onto the rebar and form a protective passivating layer that reduces the rate of corrosion initiation and propagation

#### **USES**

Sika® FerroGard® CI 210 is recommended for all reinforced concrete structures, where longer service life is desired and in situations where the concrete is exposed to aggressive environmental conditions like:

- Coastal and Marine Structures, concrete submerged / exposed to seawater
- Bridges and Highways
- Water Retaining Structures
- Refineries and Power Plants
- Piling and below grade stractures like retaing and diphragm wall

## **CHARACTERISTICS / ADVANTAGES**

- Non-Nitrite based, Non-Toxic and Environment friendly
- Acts as bi-polar corrosion inhibiting admixture
- Adsorbs on the rebar to form a corrosion resistant protective film
- Extends the service life of concrete structures
- Normal set product, that can be used in elevated / colder temperatures
- No impact on fresh or hardened properties of concrete
- Does not affect the bond between concrete and rebar.

#### PRODUCT INFORMATION

Packaging	235kg drum
Shelf life	12 months
Storage conditions	Store at temperatures above 5 °C and below 45 °C, in tightly sealed original drums. If found to be frozen, thaw it and reconstitute the product by stirring.
Appearance / Colour	Clear to slightly cloudy liquid

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#### APPLICATION INFORMATION

Recommended Dosage	Sika® FerroGard® CI 210 is recommended to be used at a dosage of 2.0 – 4.0 L per cubic metre of concrete. The dosage shall be based on factors of concrete mix design, use of supplementary cementitious material and type
	of exposure conditions for concrete. The quantity of Sika® FerroGard® CI 210 in the mix design should be taken into consideration when determining the quantity of water for a specific W/C ratio
Dispensing	Sika® FerroGard® CI 210 may be added with the concrete batch water. It should not be mixed with any other chemical / mineral admixture prior to being introduced in the concrete mixer. The use of this admixture does not require changes in normal batching procedure.

#### **BASIS OF PRODUCT DATA**

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.

#### **FURTHER DOCUMENTS**

**Plastic Properties** 

The Plastic properties of concrete are not significantly affected by the use of Sika® FerroGard® CI 210 Slump and Temperature Development Sika® FerroGard® CI 210 has no effect on the slump or the temperature development profile of concrete **Hardened Properties** 

The hardened properties of concrete are not significantly affected by the use of Sika® FerroGard® CI 210

### **ECOLOGY, HEALTH AND SAFETY**

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

#### LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

#### **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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