

PRODUCT DATA SHEET

Sika® FerroGard® CI 220

(formerly MasterLife® CI 220)

Dual Mechanism Corrosion Inhibiting Admixture

DESCRIPTION

Sika® FerroGard® CI 220 is a dual mechanism, corrosion-inhibiting admixture formulated to inhibit the corrosion of steel in reinforced concrete.

USES

Sika® FerroGard® CI 220 is recommended for steel-reinforced concrete where a longer service life is desired and in situations where the concrete will be exposed to the environment.

FEATURES

Sika® FerroGard® CI 220 functions by inhibiting corrosion at its critical points. It reacts with the cement hydration process to form a hydrophobic pore-blocking ingredient, that lines the pores of the concrete matrix and reduces capillary suction slowing the rate at which chlorides, gases, and moisture enter the concrete. Sika® FerroGard® CI 220 provides additional protection by adsorbing onto the reinforcing steel to form a corrosion-resistant protective film. This protective film slows the corrosion process by preventing chlorides from reacting with the reinforcing steel.

- Extends the service life of reinforced concrete structures
- Reduces the rate at which chlorides, gases, and moisture enter the concrete
- Effective in cracked concrete where the elements that cause corrosion have direct access to the reinforcing steel
- Increases sulfate resistance
- Normal set product that can be easily used in elevated temperatures
- Does not significantly affect the plastic properties of concrete
- Does not significantly affect the concrete temperature development
- Does not significantly affect the final hardened concrete properties

PRODUCT INFORMATION

Composition	Liquid
Packaging	1 litre, 5 litre, 20 litre containers or 235 litre drums Refer to the current price list for available packaging variations
Shelf life	9 months from date of production
Storage conditions	Store in original, unopened, and undamaged sealed packaging in temperatures above +5 °C and below +45 °C. Protect from direct sunlight and frost. Refer to the Material Safety Data Sheet for information on safe handling and storage.

Appearance and colour Clear to slightly cloudy

Density 1.00 kg/l at +25°C

TECHNICAL INFORMATION

Concreting guidance The standard rules of good concreting practice, concerning production as well as placing, shall be followed. Laboratory trials shall be carried out before concreting on-site, especially when using a new mix design or producing new concrete components. Fresh concrete must be cured properly and curing applied as early as possible, especially at low temperatures.

SYSTEM INFORMATION

Compatibility Compatible with Sika® concrete admixtures

APPLICATION INFORMATION

Recommended dosage 3 to 5 L/m³

Dispensing

IN CONCRETE BATCHING PLANT
Add the Product together with the water, or directly into the fresh mixed concrete.

IN A TRUCK MIXER
The Product may be added with the fresh mixed concrete in a truck mixer. The mixer shall be rotating the drum at maximum revolutions while the Product is being dosed. Mix for an additional 1 minute per m³ of concrete and a minimum of 5 minutes to achieve a uniform mix.

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 DOCUMENTATION

The dosing amount depends on the severity of the exposure conditions. The dosage may exceed the recommended amount. Contact your local Sika Technical Department for further guidance.

1. Do not add with the dry components.
2. Do not combine the Product with other liquid admixtures or water.
3. Check the concrete for workability and uniform consistency before discharging.

ECOLOGY, HEALTH AND SAFETY

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w)

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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Product Data Sheet

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