

PRODUCT DATA SHEET

Sika® FerroGard® CI 220

(formerly MasterLife® CI 220)

Dual Mechanism Corrosion Inhibiting Admixture

DESCRIPTION

Sika® FerroGard® CI 220 is a state-of-the-art, 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.

CHARACTERISTICS / ADVANTAGES

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

Chemical base	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 / Colour	Clear to slightly cloudy
Density	1.00 kg/l at +25°C
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.
Compatibility	Compatible with Sika® concrete admixtures. Compatible with all types of cements and cementitious materials.

APPLICATION INFORMATION

Recommended Dosage	3 to 5 L/m ³
Dispensing	IN CONCRETE BATCHING PLANT Add the product with the water or directly into the 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 m ³ 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 DOCUMENTS

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

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.

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SikaFerroGardCI220-en-IN-(06-2024)-2-1.pdf

Product Data Sheet
Sika® FerroGard® CI 220
June 2024, Version 02.01
02140300000002091

