



# MAXRITE<sup>®</sup> INHIBITOR

## MIGRATING CORROSION INHIBITOR FOR CONCRETE SURFACES



### DESCRIPTION

**MAXRITE<sup>®</sup> INHIBITOR** is an amine carboxylate-based liquid migrating corrosion inhibitor which once applied directly on concrete surface, protects against corrosion of steel rebars and extend durability and service-life of concrete in aggressive environments.

Once applied, the active compounds of **MAXRITE<sup>®</sup> INHIBITOR** penetrate deeply into the concrete through the capillary network by liquid and vapor diffusion, reaching the steel rebars and generating a protective barrier against water and chlorides, which inhibits corrosion process and extend the service-life of the concrete structure.

### APPLICATIONS

- Protection and corrosion control of reinforcement steel in structural concrete, against carbonation processes, marine environments, chlorides, de-icing salts, industrial environments, etc.
- Preventive anticorrosion protection of reinforcement steels not yet affected by corrosion: civil engineering structures, facades of residential buildings, road infrastructure, bridges, water treatment plants, industrial facilities, etc.
- Anticorrosion protection during structural concrete repairs, affected by corroded steel bars, chloride contamination, etc.

### ADVANTAGES

- Reduces 4 times the corrosion speed or, in other words, extends 4 times the service life of the treated structure, reducing repair and maintenance costs. Proven according to ASTM G109.
- Reduce the corrosion speed of corroded steel, affected by the presence of chlorides or carbonation process.
- Allows its continuous application on repaired and non-repaired areas, protecting against the incipient anodes on beside non-repaired areas.
- High penetration capacity in concrete, up to 60 mm depth.
- Double action inhibitor, protecting both anodic and cathodic areas of the steel. Creates a barrier on the rebars preventing access of water and chlorides.
- Allows the water vapor diffusion and does not create a film on concrete surface; does not change its permeability to water vapor.
- Transparent liquid solution does not change aesthetic finish of concrete surface.
- Compatible combined with repair mortar systems **MAXRITE<sup>®</sup>** or **MAXREST<sup>®</sup>** range, water-repellents protection **MAXCLEAR<sup>®</sup>**, anti-carbonation coatings **MAXSEAL<sup>®</sup> FLEX**, etc.
- Easy and quick to apply by brush, roller or airless gun.
- Solvent-free, non-flammable, environmentally friendly.

## APPLICATION INSTRUCTIONS

### Surface preparation

The surface to be treated must be free of dirt, dust, grease and efflorescence, and completely dry. Old coatings, paints, antigraffiti treatments, etc. must be removed entirely by mechanical means.

Clean surface by high-pressure water (80-150 bars) or sand-blasting. Allow surface to dry before application, as well as after raining, dew or other weather conditions.

Cracks, joints and surface defects must be repaired by using structural repair cement mortar such as **MAXREST®** (Technical Bulletin No. 02) or **MAXRITE®** range.

### Application

**MAXRITE® INHIBITOR** is supplied ready to use. Mix previously the content of the packaging with a clean tool.

Apply directly by brush, roller or air-less gun until saturation of concrete surface, with a recommended consumption of 0,3-0,5 kg/m<sup>2</sup>, but avoiding the flooding by excessive load.

In case of low porosity or non-porous concrete, apply in two or three coats to achieve the total consumption, allowing a waiting time between coats of 2 to 4 hours.

Surface can be slightly wet one or twice within the next two days.

Between 24-48 hours after application of **MAXRITE® INHIBITOR**, it can be carried out the restoration of concrete with repair mortars, washing surface previously with waterjet (80-100 bars). If water-repellents such as **MAXCLEAR®** range or acrylic coatings **MAXSHEEN®** range are to be applied, wait for minimum 48 hours before washing surface and application.

### Application conditions

Do not apply when rain, water contact, condensation and dew is expected within the first 24 h after application. Do not apply with substrate and/or ambient temperature is at or below 5°C, or when temperatures are expected to fall below 5°C within 24 hours after application. Do not apply to frozen or frost-covered surfaces.

For applications at hot temperatures (> 30°C) and direct sunlight, try to apply under shadow areas.

### Cleaning

All mixing and application tools must be cleaned immediately with water after use. Once product

hardens, this can only be removed by mechanical means.

## CONSUMPTION

Estimated consumption of **MAXRITE® INHIBITOR** is 0,3-0,5 kg/m<sup>2</sup>.

This consumption can be shared in several coats in case of low porosity surface.

## IMPORTANT INDICATIONS

- Do not add water, cements, solvents, additives, aggregates or other compounds.
- Do not apply on vitrified or painted surfaces.
- Protect green areas, metal, aluminum, wooden and glass surfaces close to the application area.
- Do not apply on surfaces saturated of water or with recent rainfalls. Allow substrate to dry.
- For other uses not specified on this Technical Bulletin or further information, consult our Technical Department.

## PACKAGING

**MAXRITE® INHIBITOR** is supplied in 5 kg can and 25 kg drum.

## STORAGE

Twelve months in its unopened and undamaged original packaging. Store in a cool, dry and covered place, protected from moisture, freezing and direct sunlight, at temperatures above 5°C.

## SAFETY AND HEALTH

**MAXRITE® INHIBITOR** is not a toxic product but direct contact with skin and eyes must be avoided. Use rubber gloves and safety goggles when handling and applying the product. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for **MAXRITE® INHIBITOR**.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

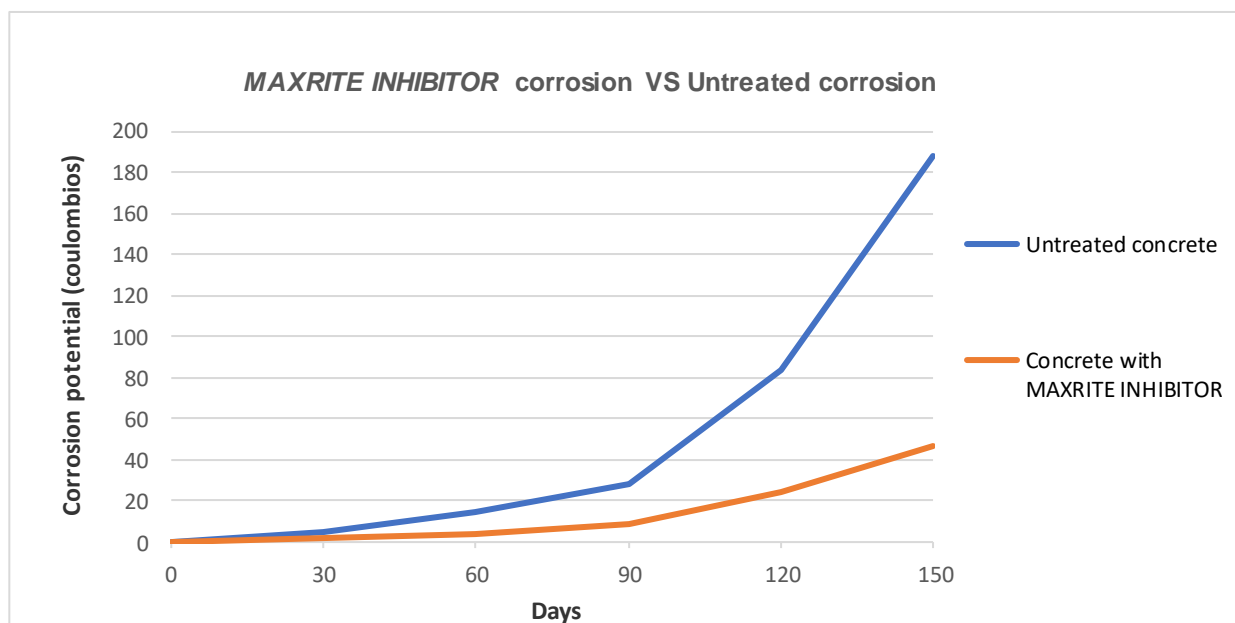
## TECHNICAL DATA

<b>Characteristics of the product</b>	
CE Marking, EN 1504-7	
Description. Active coating with corrosion inhibitors for corrosion protection of steel reinforcement in concrete structures in building and civil engineering works. Principles / Methods. Control of anodic areas by painting reinforcement with coatings containing active pigments (Principle 11-CA / 11.1), Control of anodic areas by painting reinforcement with barrier coatings (Principle 11-CA / 11.2).	
Appearance	Colorless liquid based on amine carboxylate and amino alcohols
Density (g/cm <sup>3</sup> )	1,01 ± 0,10
pH	11-14
<b>Application conditions</b>	
Application temperature, (°C)	5°C < T < 35°C
Drying time between coats, (min)	15-30
<b>Applied product characteristics</b>	
Depth penetration in concrete, (mm per day)	10 mm in 2 days 45 mm in 28 days 60 mm in 56 days
Protection against corrosion, EN 15183	No corrosion, Passes
Reduction of corrosion speed in concrete, ASTM G109	Up to 4 times (78,83%)
<b>Consumption</b>	
Estimated consumption, (kg/m <sup>2</sup> )	0,3-0,5

## CORROSION TEST IN CONCRETE, ASTM G109

ASTM G109 - Standard Test Method for Determining Effects of Chemical Admixtures on Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments.

<b>ASTM G109 - RESULTS</b>			
Time	Average corrosion potential (coulombios)		Corrosion reduction
	Untreated concrete	Concrete with <b>MAXRITE® INHIBITOR</b>	
0 days	0	0	-
30 days	4,84	1,17	75,83%
60 days	14,17	3,00	78,83%
90 days	27,86	8,61	69,10%
120 days	83,81	23,99	71,38%
150 days	187,92	46,24	75,39%



## **GUARANTEE**

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