













PREVENTIVE AND CURATIVE TREATMENT FOR OLD CONCRETE STRUCTURES, STONES AND POROUS MATERIALS.
PROTECTS AGAINST WATER, CHLORIDES, CARBONATION AND REINFORCEMENT CORROSION. CONFORMS TO STANDARD EN 1504-2:2004

PROTECTS AGAINST WATER AND CHLORIDES
 REDUCES CORROSION
 IDEAL FOR OLD CONCRETE

# **EFFECTIVE EVEN IN VERY WET ENVIRONMENTS**

# **M** NON FILM-FORMING

# **INTERIOR AND EXTERIOR**

#### PRODUCT DESCRIPTION

ImperGuard® CP is a ready-to-use product specially formulated to make existing concrete water-repellent and reduce corrosion of its reinforcing elements.

<u>Curative:</u> Stops existing corrosion of reinforcement (up to a maximum corrosion rate of 5 microns/cm<sup>2</sup>). The corrosion rate may vary as a function of moisture levels, amount of chlorides.

<u>Preventive:</u> Reinforcement in contact with moisture and chlorides (e.g. from deicing salt or other sources) will oxidise. In the process it expands, bursts the concrete and weakens the mechanical strengths of the elements affected.

Unlike corrosion inhibitors on the market, ImperGuard® CP penetrates very deeply (to a depth of as much as 6 cm) into concrete, thus keeping moisture and chlorides out. ImperGuard® CP also protects against micro-cracks (maximum size of 0.3 mm).

ImperGuard® CP offers water-repellent properties, which limit water penetration. ImperGuard® CP thus eradicates the harmful effects of moisture (infiltration, acid rain, erosion, freeze/thaw cycles, moss and lichen growth, efflorescence, etc).

	depth in mm	12	24	48	12	24	48
		weeks	weeks	weeks	weeks	weeks	weeks
		Untreated			Treated with ImperGuard® CP		
	12,5	0,7033	0,861	1.02	<0.007	0.01	<0.007
	32	0,321	0,628	0.645	<0.007	<0.007	<0.007
	50	0,032	0,386	0.0386	<0.007	<0.007	<0.007
	69	<0.007	0,04	0,04	<0.007	<0.007	<0.007

Reduction of attack by chlorides. Tests according to standard ASTM 1152 at depths of 12.5 mm, 32 mm, 50 mm and 69 mm.

#### **USE**

ImperGuard® CP can be applied vertically and horizontally, indoors and out of doors. It is ideal for protecting all kinds of structures (bridges, pillars, car parks, etc.), architectonic concretes, porous stones and porous materials.

# **CHEMICAL NATURE**

• ImperGuard® CP is based on an organofunctional silane.

# **ADVANTAGES AND CHARACTERISTICS**

- Extends concrete life.
- Deep penetration.
- Rapid efficacy in 2 weeks.
- Excellent ageing > 15 years.
- Complies with standard EN 1504 system 2+ and 4.
- Does not alter the aesthetics of the substrate.
- Suitable for cast-in-place and prefabricated concretes (more than 28 days old).
- Easy spray application.
- Effective in very wet conditions.
- Non-film-forming allows substrate to breathe.
- UV-resistant, does not yellow.
- Invisible when dry.
- · Ready to use.

# **OFFICIAL TESTS**

ImperGuard® CP has undergone numerous tests demonstrating its performance and effectiveness: resistance to chlorides and sulphates, water resistance, permeability to air and water vapour, etc.

- Institut Polymer Kiwa (Germany): Test of compliance with standard EN 1504 -2.
- CBI Betong Institutet AB (Sweden): Test of penetration into concrete, breathability, water infiltration, freeze/thaw resistance and resistance to chlorides according to the requirements of the Swedish Motorway Agency.

#### **CONTAINERS**

25 litres containers

#### **TECHNICAL DATA**

Physical state at 20 °C : Liquid : Uncoloured Appearence Odour : Solvent pΗ  $: 10 \pm 1$ Boiling point [°C] : 100 °C Density  $: 0.88 \pm 0.007$ Solubility in water [vol/vol] : Insoluble Flash point [°C] : 62°C **VOCs** : 430 g/l\*

# **HOW TO USE**

#### Surface preparation:

- The surface must be dry, clean and free of all traces of oil, grease, curing product, dust, efflorescence, paint and any other substance liable to interfere with the penetration of ImperGuard<sup>®</sup> CP.
- The substrate can be prepared by shot blasting, wet sand blasting or high-pressure water jet. Any loose parts must be removed and repaired with a repair mortar.
- Use Guard Remover® Eco Efflorescence & cement to clean pollution, grease, efflorescence, laitance or concrete bloom.
- Microcracks (smaller than 0.3 mm) that are not active and do not compromise the durability of the structure from a mechanical point of view can normally be treated with Imper-Guard® CP. Other cracks or defective weatherproofing seals must be repaired, treated with ImperGuard® CP and filled with a weatherproofing compound.

#### **Application:**

- Apply the product neat do not dilute.
- Shake the product well before use. Test first.
- Apply ImperGuard® CP over the entire surface requiring protection, including the repaired areas.
- Apply 2 to 3 coats until the substrate is saturated, depending on exposure to weather and attack. In exceptional cases (e.g. tides, marine environment) 3 to 6 coats will be required.
- Allow a minimum of 15 minutes between each coat. The surface must be visually dry.
- In the case of spray application, do not allow a mist to form.
- Drying time: 24 to 72 hours.
- Time to optimum effects, covering with a coating minimum 15 days.

# **APPLICATION TOOLS**

Apply using a low pressure sprayer with a Viton seal.



#### **COVERAGE**

The figures below should be used only as a general guideline:

180 to 230 g/m<sup>2</sup> per layer

# **CLEANING YOUR EQUIPMENT**

Clean tools and equipment immediately after use with a solvent.

# **STORAGE**

- Keep in a dry place (between 5°C and 30°C).
- Storage: 12 months following the production date when kept in the original unopened container.

# RECOMMENDATIONS

- Surfaces should not be treated until they have first been cleaned of all atmospheric pollution and all stains.
- For ideal application and effective protection, ImperGuard®
   CP must be stirred. Also, it is essential that it be used only when the substrate temperature is between 5°C and 30°C.
- Do not apply in rain or very hot weather. Air temperature between 5°C and 30°C.
- Do not dilute or mix with another product, especialy not water.
- Protect materials not intended to be treated, such as glass, aluminium, wood and paint.

# **HEALTH AND SAFETY**

- <u>Respiratory protection</u>: Wear a protective mask type ABEK.
- Hand protection: Wear rubber gloves fluorinated.
- <u>Skin protection</u>: Wear appropriate protective clothing.
- Eye protection: Wear protective airtight goggles (ref. standard EN 166)
- If swallowed: Do not induce vomiting. Contact a doctor or a specialist.

KEEP OUT OF THE REACH OF CHILDREN

# **TECHNICAL SUPPORT**

#### **GUARD INDUSTRY**

7 rue Gutenberg • 93108 MONTREUIL Cedex • FRANCE Tél: +33 (0)1.55.86.17.60 • Fax:+33 (0)1.48.58.16.89

E-mail: contactus@guardindustry.com

#### www.guardindustry.com

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