

TECHNICAL DATA SHEET Product code: Base 9730 + Thinner 9731

IMPERCUARD COLOR SILICATE STAIN

# SILICATE MINERAL STAIN PROTECTS AND EMBELLISHES CONCRETE

# **FRANSPARENT COLORED** IMPREGNATION SYSTEM WITH CUSTOM OPACITY

**HOMOGENIZES AND DECORATES** 

# MINERAL AND NATURAL AESTHETIC APPEARANCE

# **PRODUCT DESCRIPTION**

### Transparent pigmented silicate mineral stain

ImperGuard<sup>®</sup> Color Silicate Stain is a system of two products (a colored base + a silicate thinner) to obtain a silicate mineral impregnation with low opacity to color exterior or interior concrete facades.

This stain gives a new aesthetic dimension to the works. It tints, embellishes or standardizes the appearance of concrete while preserving its skin and its minerality.

This system ImperGuard<sup>®</sup> Color Silicate Stain is a mineral stain which complies with the AFNOR NFT 36-005 standard: Family I class Ib (products containing at most 5% organic compounds).

ImperGuard<sup>®</sup> Color Silicate Stain associated with ImperGuard<sup>®</sup> Color Silicate Thinner can be diluted by default in 3 different levels depending on the desired level of transparency. It is however possible to create a custom opacity by diluting the stain between 1: 2 and 1:10.



The final color depends on the color of the stain and the color of the support. ImperGuard<sup>®</sup> Color Silicate Stain is a non-film-forming

ImperGuard<sup>®</sup> Color Silicate Stain is a non-film-forming product which perfectly respects the natural mineral aspect of concrete. In addition, the backing remains permeable to air and water vapor.

- **REINFORCED WATER REPELLENT PROTECTION**
- **W** UV-RESISTANT AND ALLOWS THE SUPPORT TO BREATHE
- **INTERIOR AND EXTERIOR**

## Water-reppelent and mineralizing effect

ImperGuard<sup>®</sup> Color Silicate Stain has a water-repellent property. It provides lasting protection against the penetration of water and thus limits the harmful effects of humidity: infiltration, acid rain, erosion, freeze / thaw cycle, formation of mosses and lichens, appearance of efflorescence or saltpetre...

ImperGuard<sup>®</sup> Color Silicate Stain also has anti-dust properties. It hardens the surface of the concrete to make it less fragile and less dusty.

# USE

ImperGuard<sup>®</sup> Color Silicate Stain can be used vertically outdoors and indoors on all types of porous or slightly porous concrete: common, reinforced, fiber-reinforced, high performance (UHPC), architectural, stamped, smooth, prefabricated concrete, etc.

The stain can also be applied to architectural desativated concrete while keeping the aggregates visible.

# ADVANTAGES AND CHARACTERISTICS

- Gives color while retaining the minerality of the support and without forming a film on the surface: lets the support breathe.
- Optimal adhesion: no risk of chipping or detachment.
- Limits water from entering and limits the harmful effects of humidity: infiltration, acid rain, erosion, freeze / thaw cycle, formation of mosses and lichens, appearance of efflorescence or saltpetre...
- 25 year color guarantee, UV resistant.









# AVAILABLE COLOURS

ImperGuard<sup>®</sup> Color Silicate Stain is available in 42 standard colors. It is also possible to realize all types of colors on request from any existing color chart.

### CHEMICAL NATURE

 Preparation of silicates and colloidal silicas (silica sol), acrylic copolymer, specialty additives and mineral pigments in aqueous phase.

#### ENVIRONMENT

#### Ecological and respects the environment:

- Water-based product.
- No petroleum-based solvents. & silicone-free.
- Safe and non-toxic.
- Biodegradable > 80%\* .
- VOCs < 5 g/l\*.</li>
- Rating for VOC emissions into idoor air: A+

#### CONTAINERS

- Coloured base: 5 and 25 liters bucket.
- Silicate thinner: 25 liters bucket.

# **TECHNICAL DATA**

#### ImperGuard<sup>®</sup> Color Silicate Stain

Physical state at 20 °C	: Liquid
Appearence	: Coloured
Odour	: Odourless
pН	: 10,75 ± 0.5
Boiling point [°C]	: 100 °C
Density	: About 1.0
	depending on the
	colour
Solubility in water [vol/vol]	: Total
Flash point [°C]	: Not applicable

#### ImperGuard<sup>®</sup> Color Silicate Thinner:

Physical state at 20 °C	: Liquid
Appearence	: Milky
Odour	: Odourless
pН	: 11,28 ± 0.5
Boiling point [°C]	: 100 °C
Density	: 1.0
Solubility in water [vol/vol]	: Total
Flash point [°C]	: Not applicable

# HOW TO USE

Surface preparation:

- The conditions of application and substrate preparation must comply with French unified code of practice DTU 59.1.
- Apply the product to a surface that is clean, dust-free, grease-free and dry.
- Clean using Guard Cleaner<sup>®</sup> Eco Surface Preparation to open up the porosity of the concrete and allow optimum grip of the protection. This step also allows

the elimination of traces of efflorescence, laitance or cement bloom. Repeat the operation in case of persistent traces.

- In case of greasy stains or formwork release oil residues, use Guard Cleaner<sup>®</sup> Eco Maintenance first.
- Rinse carefully with a pressure washer until the surface is free from all traces of the cleaner.
- Wait for complete drying through, approximately 24 hours before treatment.

#### Preparation of the product:

- ImperGuard<sup>®</sup> Color Silicate Stain must be diluted with ImperGuard<sup>®</sup> Color Silicate Thinner before application.
- Before dilution, mechanically mix the two products for 2 min until complete homogenization.
- Recommended dilution:

1:2	1:5	1:10
I volume of	I volume of	I volume of
silicate stain	silicate stain	silicate stain
for	for	for
2 volumes of	5 volumes of	10 volumes of
silicate thinner	silicate thinner	silicate thinner

- Depending on the desired opacity choice, it is possible to dilute the stain from 1: 2 to 1:10.
- Carry out the dilution in a measuring bucket then mix mechanically for 5 min.
- After dilution, the mixture can be used for 24 hours.

#### Application :

- Always carry out a preliminary test before application.
- The product is applied in two coats. Do not overload the support.
- Apply a first coat on the support. Usual consumption on concrete: 50 to 70 g / m<sup>2</sup> (20 to 14m<sup>2</sup> / liter).
- Leave to dry 45 min to I hour depending on weather conditions (do not exceed 24 hours between 2 layers).
- Apply a second coat. Usual consumption on concrete: 50 to 70 g / m<sup>2</sup> (20 to 14m<sup>2</sup> / liter).
- Apply a third coat if total consumption is not reached.
- Protected drying: 24 hours.
- Maximum efficiency obtained after 3 days.

For more information refer to the technical specifications.

#### **APPLICATION TOOLS**

- Apply using a wide brush, a foam roller, short bristles or long bristles depending on the nature of the support.
- It is also possible to apply using an HVLP / Airmix / Airless type sprayer.



The following values are for guidance only:

#### 100 to 140g/m<sup>2</sup> for 2 layers (7 to 10 m<sup>2</sup>/L).

# **CLEANING YOUR EQUIPMENT**

• Clean tools and equipment immediately after use with water.

# 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

- Remove all atmospheric pollution-related dirt from all surfaces to be treated before starting the treatment.
- On fresh concrete or cement, wait at least 10 days before application (check the humidity level and the pH before application for any period less than 28 days or consult the Technical Department).
- Do not apply to very low porous, polished or glazed concrete, organic, metallic or waterproofing materials.
- For a perfect application and effective protection, ImperGuard<sup>®</sup> Color Silicate Stain must be used on a support having a temperature between 10°C and 30°C, a humidity level less than or equal to 5% and a pH between 7 and 10.
- Do not apply in rainy weather, very hot weather or in full wind. Air temperature between 10°C and 30°C. Hygrometry rate: between 30% and 80% RH (relative humidity).
- In the event of rain 24 hours after application, plan to reapply the product. Check for the absence of precipitation within 24 hours of the work.
- Do not dilute or mix with any other product.
- Provide protection for nearby substrates and for the person applying the product.

# HEALTH AND SAFETY

- <u>Respiratory protection</u>: Wearing a P3 mask recommended in particular in confined spaces.
- <u>Hand protection</u>: Wear latex gloves.
- <u>Skin protection</u>: Wear protective clothing with long sleeves.
- <u>Eye protection :</u> If there is a real risk of splashing, wear protective goggles.
- <u>If swallowed</u>: Do not induce vomiting. Contact a doctor or a specialist.

# PRODUCT FOR PROFESSIONAL USE ONLY

# **TECHNICAL SUPPORT**

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