



WATER, OIL-REPELLENT AND ANTI-STAINING MINERAL STAIN PROTECTS, EMBELLISHES AND DECORATES CONCRETES

- ✓ PROTECTS AGAINST WATER, OIL, STAINS AND DIRTS
- ✓ HEAT CONTROL TECHNOLOGY: DECREASES THE SURFACE
- ✓ DECORATES AND EMBELLISHES
- ✓ ALLOWS SUBSTRATE TO BREATHE
- ✓ UV-RESISTANT
- ✓ INTERIOR AND EXTERIOR

PRODUCT DESCRIPTION

ProtectGuard® Color Heat Control: one product, two functions:

1. Water and oil repellent product

ProtectGuard® Color Heat Control gives lasting protection against the main causes of deterioration such as dirt, stains of all kinds, atmospheric pollution, greasy dirt, water intrusion, etc. Treated substrates resist penetration by water, oil and dirt. The cleanliness of treated substrates is thus assured.

2. Pigmented stain with heat control technology

ProtectGuard® Color Heat Control is a substrate stain well suited to concretes. Unlike a paint, it is a semitransparent product which does not interfere with the inorganic nature of the materials. The final colour is dependent on the colour of the stain and the colour of the substrate.

ProtectGuard® Color Heat Control is a non-film-forming product – the substrate remains permeable to air and water vapour. **ProtectGuard® Color Heat Control** is a one-component product and does not require the

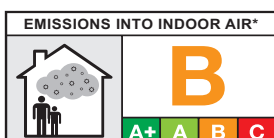
mandatory application of primer to make the surface beneath it uniform.

ProtectGuard® Color Heat Control is an innovative formula based on cold pigments. These new generation pigments absorb less heat and allow better durability of stained structures.

How does cold pigment technology work

Under the effect of IR rays, dark tints applied to concrete absorb energy and rise rapidly in temperature. This has the effect of heating the concrete and weakening it. The DTU59.1 therefore prohibits the use of any color with an absorption coefficient > 0.7 , that is to say a solar reflection rate (TSR) $< 30\%$.

Unlike conventional black pigments, the use of cold black pigments will allow the energy of IR rays to be reflected much more and decrease the energy absorbed in the form of heat. Result: concretes tinted with dark colors heat less and hold up better over time. The solar reflection rate (TSR) is increased and the absorption coefficient lowered. Dark colors thus become compliant with DTU59.1



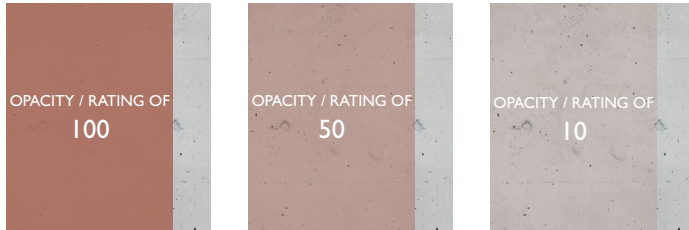
USE

ProtectGuard® Color Heat Control is used indoors as well as out on all kind of vertical concretes: regular concrete, reinforced concrete, fiber concrete, UHPC, etc.

AVAILABLE COLOURS

ProtectGuard® Color Heat Control stains come in 25 standard colors and are available in matt or glossy finish. Customers' own colours can also be incorporated in the laboratory or on site on demand.

Each shade is available in 3 different opacities (opaque, semi-opaque and slightly opaque).



CHEMICAL NATURE

Aqueous-phase fluorinated acrylic copolymer with inorganic pigments.

ADVANTAGES AND CHARACTERISTICS

- Gives colour while preserving the inorganic nature of concrete and without forming a surface film.
- **Prevents too great a rise in the surface temperature of the concrete. Provides structural protection of concrete against the damaging effect of sunlight.**
- Anti-stain & anti-dirt: prevents water and greasy liquids from penetrating.
- 25 years colour lasting & 10 years AXA guarantee.
- Limits recurrence of dirt build-up due to pollution and moss and lichen growth - makes cleaning easier.
- Sacrificial anti-graffiti. The colour stain must be reapplied after graffiti has been removed.
- Prevents freeze/thaw damage.
- Non-film-forming, allows substrate to breathe.
- UV-resistant. Ready to use.

ENVIRONMENT

Ecological and respects the environment:

- Water-based product.
- No petroleum-based solvents. & silicone-free.
- Biodegradable > 80%*.
- VOCs < 26 g/l*.

OFFICIAL TESTS

ProtectGuard® Color Heat Control has undergone numerous tests by external laboratories demonstrating its performance.

- LRVision: Test of resistance to water and oil repellency. Test of abrasion and UV resistance.
- Crepim: Fire test.
- Eurofins: VOC emissions / LEED certification.
- LMDC: chloride resistance (LMDC)
- SIMCO: water absorption in concrete.
- Thomas Bell-Wright: tested & certified as per ASTM E84 with Class A result. Refer to www.tbwcert.com for validity and full documentation.

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® 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. To renew in case of persistent traces.
- In case of greasy stains or formwork release oil residues, use Guard Cleaner® 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.

Application:

- Use neat - do not dilute.
- Shake the container well before use. Use an electric stirrer if necessary to thoroughly disperse the pigments through the product.
- Always test first.
- Protected drying: 24 hours.
- Optimum effectiveness obtained after 7 days.

Application by HVLP :

- Apply from the bottom up in at least 2 cross coats. Do not exceed the recommended final consumption of 120 to 160 g/m².
- Do not overload.
- Drying time between each coat: 15 to 60 minutes depending on weather conditions. The 1st coat must be dry to the touch before applying the 2nd coat.

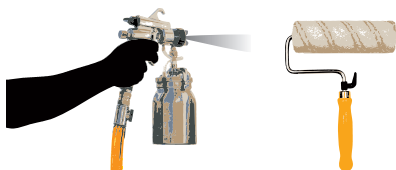
Application roller (only used for 100% opacity & non-textured smooth surfaces):

- Apply from the bottom up in at least 2 cross coats. Do not exceed the recommended final consumption of 120 to 160 g/m².
- Do not overload.
- Drying time between each coat: 15 to 60 minutes depending on weather conditions. The 1st coat must be dry to the touch before applying the 2nd coat.

For more information refer to the technical specifications.

APPLICATION TOOLS

For a perfect application, we recommend using an HVLP sprayer. Application with a short nap roller is also possible.



COVERAGE

Coverage depends on the porosity of the material. The figures below should be used only as a general guideline (final coverage):

120 to 160 g / m² or 6 to 8 m² / L.

MAINTENANCE

Stains & dirt :

- The support can be cleaned with clear water or with diluted **Guard® Cleaner Maintenance** (1 volume of product for 9 volumes of water).

Graffiti & tags :

- Graffiti can be cleaned using **Guard® Remover Graffiti 2010**. Stain will need to be reapplied after cleaning.

CONTAINERS

1, 5 and 25 litres cans.

CLEANING YOUR EQUIPMENT

Clean tools and equipment immediately after use with water.

TECHNICAL DATA

Physical state at 20 °C	: Liquid
Appearance	: Coloured
Odour	: Odourless
pH	: 8.5 ± 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

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

- Only treat surfaces previously cleaned of all atmospheric pollution and stains.
- On fresh concrete or cement, wait at least 28 days before application.
- Do not apply to organic, metallic or waterproofing materials.
- For a perfect application and effective protection, **ProtectGuard® Color Heat Control** 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). Check for the absence of precipitation within 24 hours of the work.
- Always handle the product in a ventilated area.
- Provide protection for the surrounding supports and protection for the applicator.
- Do not dilute or mix with any other product.

HEALTH AND SAFETY

- Respiratory protection : Under normal conditions of use where adequate ventilation is available, no special respiratory protection equipment is needed.
- Hand protection : Wear latex gloves.
- Skin protection : Wear protective clothing with long sleeves.
- Eye protection : If there is a real risk of splashing, wear protective goggles.
- If swallowed : Do not induce vomiting. Contact a doctor or a specialist.

PRODUCT FOR PROFESSIONAL USE ONLY

TECHNICAL SUPPORT

GUARD INDUSTRY

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