TECHNICAL DATA SHEET



PROTECT GUARD[®] COLOR HEAT CONTROL



Product code: 9854 Matt, 9855 Glossy



WATER, OIL AND DIRT REPELLENT MINERAL STAIN PROTECTS, EMBELLISHES AND DECORATES CONCRETE

PROTECTS AGAINST WATER, POLLUTION, GREASY STAINS...

HEAT CONTROL TECHNOLOGY: DECREASES THE SURFACE TEMPERATURE OF CONCRETE

PRODUCT DESCRIPTION

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

I. 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 DECORATES AND EMBELLISHES
ALLOWS SUBSTRATE TO BREATHE & UV-RESISTANT
INTERIOR AND EXTERIOR

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 stains come in 42 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.
- Prevents water and greasy liquids from penetrating.
- Stain- and dirt-repellent. Adhesive-repellent
- Limits recurrence of dirt build-up due to pollution and moss and lichen growth - makes cleaning easier.
- Limits the penetration of 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.
- Safe and non-toxic (certificated LEED).
- Biodegradable > 80%*.
- VOCs < 26 g/l*.
- Rating for VOC emissions into idoor air: B

CONTAINERS

I, 5 and 25 litres.

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[®] 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[®] 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.

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.
- Full effects achieved after 7 days.

<u>Application by HVLP :</u>

- Apply from the bottom up no more than 2 to 4 coats at right angles to each other depending on the desired appearance.
- Apply sparingly.
- Drying time between coats: 15 minutes.

Application roller (only used for 100% opacity & nontextured smooth surfaces):

- Application in 2 or 3 coats. Spread the product well on the support without overloading it. In case of traces of runs, remove them immediately (before drying) by tapping with a soft brush.
- Drying time between each pass: 30 min on average. The surface must be dry to the touch before applying the next coat.
- It should be noted that for opacities less than 100%, the application with a roller may be less easy for a homogeneous rendering. It is therefore necessary to pull the product well with the roller.

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

The following values are for guidance only:

6 to 8 m² / litre for 2 layers.

TECHNICAL DATA

Physical state at 20 °C	: Liquid
Appearence	: Coloured
Odour	: Odourless
рН	: 8.5 ± 0.5
Boiling point [°C]	: 100 °C
Density	: About I.0
	depending on the colour
Solubility in water	: Total
Flash point [°C]	: Not applicable

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, 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).
- 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>: Under normal conditions of use where adequate ventilation is available, no special respiratory protection equipment is needed.
- <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

GUARD INDUSTRY

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