



# HYDRO SP

ANTI-GRAFFITI-IMPREGNATION



# USER MANUAL

*version 2019.1*

## ***Product description***

Environmentally correct, aqueous graffiti protection impregnation.

## ***Technical properties***

Active ingredient cont.:	> 10 % (m/m)
Transport agent:	water
Density:	1.00 kg/l
pH value:	approx. 8.5
Viscosity:	DIN 4 cup 12 sec.
Appearance:	milky

## ***Characteristic data of the product after application***

Water absorption example:  $W_{24}$  value (sand-lime brick):  $0.07 \text{ kg (m}^2 \text{ h}^{0.5}\text{)}$ .

No noticeable reduction of permeability (dependent on substrate), UV-stable, weather stable, alkali resistant, dries non-stick.

## ***Properties***

GRATCH Hydro SP is an aqueous, milky but clear drying impregnation. After applying GRATCH Hydro SP on capillary and porous wall it forms a macro-modular layer. The formation of a protective layer, stops the penetration or adhesion of paints or paint pigments into or on the substrate. The separate layer along with the graffiti can easily be removed with a hot water high pressure cleaner (at least  $80^\circ - 90^\circ \text{ C}$ ). GRATCH Hydro SP reduces the absorption of water and pollutants on cementitious substrates. The surface structure of treated surfaces is maintained. Colour is slightly intensified; the degree of gloss is slightly reduced.

## ***Range of use***

GRATCH Hydro SP can be used to treat cementitious building materials such as sand-lime, brick, brick, natural stone, render and concrete in wall areas as well as sculptures and monuments. **It cannot be used on floors or on coated wall surfaces e.g. painted surfaces.**

## ***Substrates***

The substrate must be in sound condition. Structural defects e.g. cracks, cracked joints, defective connections, rising damp and hygroscopic moisture must be corrected first. Care must be taken that water and damaging salts dissolved in the water cannot get behind the treated area. Dirt deposits, dirty crusts as well as efflorescence, algae and moss must be removed by a suitable cleaning procedure prior to application. Cleaning opens the capillaries and pores which allows the impregnation agent to be absorbed. When cleaning, make sure that the building fabric is not damaged. Residue of previous cleaning (e.g. surface-active agents) can impair the effect of GRATCH Hydro SP and must be thoroughly washed off for this reason.

### ***Substrate condition***

If damaging salts such as sulphates, chlorides and nitrates are present in the substrate, a quantitative salt analysis is essential. High salt concentrations can lead to damage and cannot be prevented by impregnation.

***Adjoining surfaces*** Those parts of the facade that are not to come in contact with the impregnation agent such as windows, varnished surfaces or surfaces to be varnished as well as glass and plants must be covered with polyethylene sheets.

### ***Working Instructions***

The impregnation agent must be applied in a pressure less flow coating procedure with a wide spray nozzle in such amounts that a 30-50 cm long film of liquid runs down the surface of the building material. The spray nozzle is led along the facade and immediately worked over with a wide brush. The procedure must be repeated at least once and more often if necessary. To avoid missing parts, limited sections should be completed without interruption. On smaller, complicated surfaces that do not allow a flowing spray application, work can be carried out with a brush or roller. When this application method is used, tools must be always well saturated to ensure sufficient material is applied. The freshly treated surfaces should be protected from driving rain for at least 5 hours. Strong wind and direct sunlight can accelerate evaporation of the transport agent which negatively influences penetration depth. In case the subject area has previously been treated with a water repelling impregnation the substrate must be primed with GRATCH Hydro SP using a brush - rubbing it into the substrate. Special additives temporarily eliminate the hydrophobic effect which allows the aqueous product to adhere to the water repelling surface.

### ***Working temperature***

Treatment can be carried out at an ambient temperature range of 10° to 25°C.

### ***Removing Graffiti***

Graffiti that has been sprayed onto treated surfaces are removed with a hot water high-pressure spray cleaner with a temperature of approx. 80° to 90°C. The impregnation agent dissolves from the facade along with the graffiti. The protective layers must always be restored after the surface has been cleaned and has dried. It is important that the temperature of the water is still 80° C when it hits the surface to be cleaned which means that the temperature when leaving the nozzle will need to be accordingly higher.

Principles of hot water high pressure cleaning: The farther the spraying distance of the high-pressure cleaner, the low the water temperature when it hits the surface of the building. Case example: a hot water high pressure jet at 80° C, 50 bar, at an angle of 40° and a distance of 1 m only has a temperature of approx. 35° C when it hits the building surface. As a rule, better cleaning results are achieved with lower pressure and higher temperatures (e.g. 25 bar, 120° C) than at higher pressure and lower temperatures (e.g. 120 bar, 85° C). Some surfaces simply do not allow the employment of a high pressure cleaner. In these cases, Gratch Graffiti Remover is a practical alternative for cleaning surfaces that have been treated with GRATCH Hydro SP and need cleaning.

**Tools and cleaning:**

All low pressure, conveyor and spraying equipment and liquid pumps are suitable. Tools should be clean and dry. After use and before longer pauses, clean thoroughly with water.

**Application rate:**

Clinker:	0.1-0.2 l/m <sup>2</sup>	Natural stone:	0.3-0.8 l/m <sup>2</sup>
Brick:	0.2-0.5 l/m <sup>2</sup>	Granite:	0.1-0.2 l/m <sup>2</sup>
Concrete:	0.2-0.3 l/m <sup>2</sup>	Render:	0.2-0.3 l/m <sup>2</sup>

The required amount of impregnation agent for calculation and tender purposes should be determined on a sufficiently large trial area (1-2 m<sup>2</sup>). The effectiveness of the impregnation can also be tested on this surface.

**Shelf-life:**

At least 6 months, stored cool but frost-free in closed, original containers.

**Safety, Ecology, Disposal:**

Further information on safety for transport, storage and when handling as well as on disposal and ecology is found in the latest Safety Data Sheet.

***Product overview Gratch International:***

- **GRATCH Anti-Graffiti** removal, protection & Tornado
- **REVOGLAS** scratch removal systems
- **LIQUIFOIL** temporary protective liquid foil
- **RENOVIO** renovation products
- **MIGHTY BRIGHTY** projection screen paint

**GRATCH**<sup>®</sup>  
INTERNATIONAL

P.O. Box 7034 - 5980 AA Panningen - The Netherlands  
Tel.: +31 77 - 465 10 95 Fax: +31 77 - 465 10 96 E-mail: [info@gratch.com](mailto:info@gratch.com)

**WWW.GRATCH.COM**