



NANO-220 Wood Protect

BREATHABLE PROTECTIVE COATING FOR HEALTHY WOOD

- ✓ For indoor and outdoor use
- ✓ Invisible and water-repellent

Technical Info

- Base: Silicon dioxide / Silica.
- Form at 20°C: liquid.
- Colour: colourless.
- Odour: odourless.
- Solvent: water.
- Relative density at 20°C: approx. 1.004 kg/l.
- pH: 7.5.
- Viscosity at 20°C: 1 mPa.s.
- Penetration: 5 to 7 mm.
- Drying time: 24 hours, low temperatures and a high relative humidity delay drying.
- Shelf life: at least 24 months, in the original, closed packaging, if stored in a cool, dry and frost-free place.

Packing

NANO-220 Wood Protect - can 5L	486405000
NANO-220 Wood Protect - can 20L	486420000

Product [NANO-220]

Characteristics

Durable, moisture-resistant coating for most types of wood; for both indoor and outdoor use. Made from water-based, mineral nanoparticles, Wood Protect is ecological; it doesn't contain plastics, solvents or other toxic substances. The product's strong water-repellent effect makes sure the treated surface dries very quickly. This inhibits algae and moss efflorescence and thus the formation of green and black deposits, and dirt is washed away by rain. It is not necessary to mask windows, glass panes and other surfaces. Easy to apply with a HVLP spray gun, Wood Protect offers more than five years of protection in a single coat.

Applications

- Protection of wooden facades, garden furniture and joinery against stains and green algae efflorescence.
- Self-cleaning vertical surfaces (by the action of rain): cladding, shingles, log cabin profiles, T&G boards, sidings, shelving.
- Prevention of stains on solid timber and veneer wood in interior construction.
- Protection of garden timber against swelling and rotting, also when engraved.
- Prevention of rust stains and run-offs on wooden facades.

Use

Preparation

- Apply on a clean, dry and receptive substrate. Clean, rinse and dry the substrate if necessary. If a moss remover, acid or alkaline cleaner has been used, rinse the surface well with water. Remove the dust completely after sanding or applying another abrasive method. The surface must be completely dry. Wait at least 24 hours after cleaning or a rain shower.
- Shake Wood Protect well before use and do not dilute.

Applying the coating

- Apply Wood Protect by spraying with the Novatio Pressure Bottle with the great advantage that a controlled, uniform amount of product is applied. For spraying with a HVLP spray gun, the guideline value is 4 bar, with a 0.7 - 1 mm nozzle size. This can be adjusted to suit the circumstances and user's experience.
- For an optimal result, treat the entire substrate with a single non-saturating coat.
- Spreading rate will depend on the absorbency and roughness of the surface, application method, user experience and weather conditions.
- Apply at ambient temperature between 10°C and 30°C and an RH of maximum 85%. Do not apply when it is raining or frosty. Dry in 24 hours, depending on substrate, temperature and amount applied. Maximum protection after 7 days. Clean surrounding materials with a damp, clean cloth before the product has fully dried. Immediately after use, clean the tool with clean water.
- The spreading rate is between 12 and 14 m² per litre (70-80 ml (g)/m²). Wearing gloves and proper ventilation is recommended. Should you be unsure of the product's compatibility with the substrate, first test it in an inconspicuous area.

Curing time

- The nanoparticle network needs 24-48 hours to harden, adhere and activate. Curing time will shorten as the ambient temperature rises. The product must not come into contact with water during this time. The bead effect is only visible after curing. The effect is optimal from 7 days after application.

Durability

- The durability of the coating depends on the stability of the substrate, the weathering caused by foot traffic or contact, the chemical load and the extent of air pollution. An actual active durability of more than 5 years is realistic.

What can negatively influence the product's durability or action?

- Degradation of the surface.
- Weathering caused by foot traffic or contact may wear off the top layer.
- Build-up of a layer of dirt. Wood Protect is a surfactant. If the surface is covered with dust, pollen or mud, it will temporarily lose its effect. Rainfall and drying restore the effect. In particular, this happens in the case of horizontal surfaces, in highly polluted environments (industry) and following exposure to intense atmospheric pollution (Sahara Desert sand, pollen).
- Humidification of the surface. Rather than impregnation, Wood Protect works by repelling water electrostatically. If the substrate becomes moist due to water pressure or penetration, this surface effect is cancelled. Wood Protect does not protect against standing water or water pressure. The nanoparticles form a network that makes the surface water-repellent. If that network is broken by pressure, friction or the use of surfactants, the subsurface will absorb water. Once the substrate has dried fully, the water-repellent effect is automatically restored.

Unprotected wood will turn grey over time. This is mainly due to the effect of UV rays from sunlight and therefore wood ages more quickly on a structure's south side.

NANO-220 Wood Protect is a mineral product without a UV blocker, which means it will not influence the ageing of wood. Due to the self-cleaning effect, it ensures that the wood colour will gradually become a beautiful silver grey, instead of turning black because of soot deposits.

Wood Protect is not a cleaner. Wood Protect is not suitable for treating water-repellent or poorly absorbent wood (i.e. already treated with a water repellent, polished or non-porous).