NANOSEAL WOOD

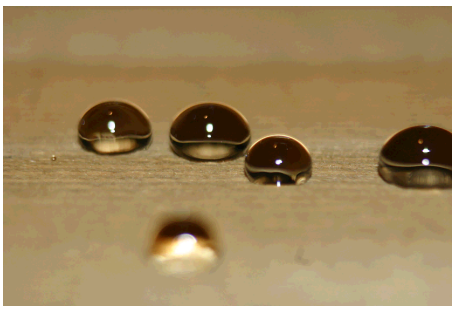
Nanotec Pty Ltd

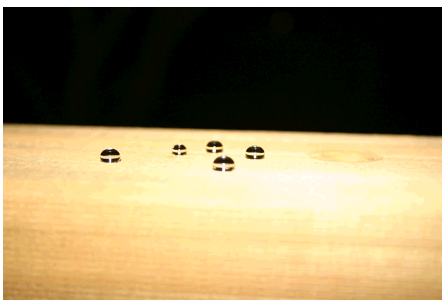
NANO – hydrophobic impregnation for wood

- Ø **Water-repellent**
- Ø **Dirt-repellent**
- Ø **Moss - algae-rejecting**
- Ø **Easy to clean/self cleaning**
- Ø **Weather protection**
- Ø **allows trapped moisture to breath out**
- Ø **UV - weather-resistant**

Product:

Nanoseal Wood is a water-based NANO hydrophobic (water hating) treatment with a very high penetration depth for wood. This is not a sealer that forms a barrier but rather is a modification of the surface chemistry on a molecular level to provide a water repellent surface. Due to the hydrophobic treatment effect, dirt particles can not penetrate the matrix of the surface. The Nano-particles adhere directly to the substrate molecules, deflecting any foreign matter. Water runs off easily from the treated surface and all dirt particles are washed off by rain or when rinsed with water (Easy to clean effect – Self cleaning effect).





Water is one of wood's worst enemies. Whether in the form of vapour or liquid, water can cause shrinking and swelling, which can lead to dimensional changes of the wood and degradation of the finish. Water causes decay or rot of the wood and early failure of paint, and it accelerates the weathering of wood exposed outdoors.

By repelling water, Nanoseal Wood enables wood to resist decay and discoloration by wood-decay fungi, which need moisture to live. Due to the water repellent effect Nanoseal Wood also decreases the swelling and shrinking that lead to cracking and warping. It protects wood from blistering, cracking and peeling.

Nanoseal Wood is transparent, so there is no visible change to the surface. As within the plant world after rainfall Nanoseal Wood allows the dirt in combination with water to simply wash off and provides a clean surface (the Lotus effect). It prevents the penetration of humidity and simultaneously, preserves the breathing ability of the substrate. The treated surface is protected from driving rain and will show less micro cracks .The treated surface is guarded against new contamination from dirt, street dirt, dust and atmospheric pollution. Moss and algae and fungi formation cannot develop and penetrate the treated surface. The Nano- hydrophobic treatment is resistant to friction, UV-stable and change temperature steady. It can not be removed by water or normal cleaning agents.

Nanoseal Wood can be used for internal and external areas. Nanoseal Wood is unsuitable for polished and painted materials. New wood must be pre-weathered or sanded and natural surface oil must be removed. It can be used on CCA treated timber. Hardwood has to be tested. Hardwood can be difficult to treat with Nanoseal Wood due to the reduced water absorption rate of hardwood. Please keep in mind, Nanoseal Wood is water based.

Industrial spraying devices:

Nanoseal Wood can be sprayed with every industrial airless pump. The size of the nozzle must be as small as possible to achieve the optimal effect together with a small consumption. Coverage rate with professional spraying devices, (depending on the absorbency of the substrate) is approximately between 20 and 150 g/m ^{2}. (between 7 and 50 square meter per litre).

Application:

Ensure all timber is clean, dry and free from surface coatings, such as paint, varnish or polish. If applying over previously oiled timber ensure the oil is thoroughly weathered.
Please note that older surfaces must be thoroughly cleaned with water, high pressure water jet or steam cleaned. Dirt particles, moss and algae has to be removed before the application. Oiled and waxed surfaces should be tested first.

The substrate should be completely dry before application. Wet substrate will show a higher consumption rate.
The surfaces should be sprayed twice with a garden pressure spray pump or an airless pump. (Wet on wet)
The product has to be sprayed in a way that a wet film appears on the surface.
NANOSEAL WOOD draws into the surface pores immediately after the first contact. Approximately after 2 – 5 minutes apply second coat. Usually a bead formation appears on the surface in between coats.
Don't leave puddles of product on the substrate.

Other applying techniques:

Apart from spraying, the product can be applied by dipping or with a brush. With these methods however it must be taken into account that there may be higher product consumption.

Curing time:

NANOSEAL WOOD is stabilized within a few minutes of application and the surface is accessible with clean and soft footwear. The complete curing (self assembling) on dry surfaces is achieved within 24 to 48 hours (temperature 20°C). Nevertheless, the product is rain proof as soon as it has dried.
Different temperatures can change the curing time.
Application temperature: + 4 °C to +35°C

Consumption:

Consumption app. between 20 and 150 g/m ^{2} depends on the absorbency of the substrate. As a result about 7 to 50 square meters of surfaces can be protected with 1 litre Nanoseal Wood.

Duration of storage:

Nanoseal Wood can be stored in the original sealed packaging for at least 6 months. Storage conditions should be dry and cool. After opening of the container NANOSEAL WOOD should be used quickly

First Aid:

If swallowed rinse mouth thoroughly with water immediately.
DO NOT induce vomiting. Give a glass of water or milk to drink. Seek medical advice.

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