



Sioo:x

WOOD PROTECTION

Cleaning and maintenance of Sioo:x treated surfaces

CLEANING AND MAINTENANCE OF SiOO:X TREATED SURFACES – Cladding and Decking

LOOKING AFTER YOUR PROJECT

Wood is a natural material and even when treated with a wood protection or a preservative it can be impacted by dirt and atmospheric fallout including fungal spore. Urban environments are particularly prone but rural environments are not immune as agricultural pollutants and airborne particles can be carried over considerable distances. Dirt and pollution can lead to the formation of algae and fungal growth.

The key is to understand that timber surfaces, no matter how treated, need to be cared for and maintained. Early removal of accumulating dirt and early stage of algae or fungal spore through a regular care and maintenance program, will lead to a sustained beautiful appearance.

Although the SiOO:X treatment provides protective resistance to the penetration of algae and fungi, they can hold on to the surface and have a negative aesthetic effect. This is especially a problem in humid climates, wet times of the year and on special exposed parts of the building.

WEATHERING

Weathering is the chemical and physical change that occurs when timber is exposed to the weather. It occurs in the surface of the timber. When timber is exposed outdoors without a protective coating, the surface undergoes rapid changes to both its appearance and its texture because of exposure to sunlight, particularly UV-light, rain, snow, ice and wind. When SiOO:X is applied as a protective coating, the undesirable effects of weathering are mitigated, and the desirable effects are replicated.

LEACHING AND TIDE MARKS

Wood contains a diverse range of naturally occurring chemicals which are mobile in solvents and are known as extractives. They include common substances in wood such as lignin and resin, and special substances as tannins in oak and thujaplicin and polyphenols in western red cedar. The leaching of extractives may be uneven and may result in tide marks in regions of the wood where the extractives are concentrated. This can occur more often on vertical surfaces such as cladding. In areas near overhangs or areas not directly exposed to the weather. If tide marks occur on SiOO:X treated timber, they are easy to remove using the SiOO:X Maintenance Wash. Once water soluble extractives have fully leached, there will be no further development of tide marks.

A special positive function of the SiOOX system is that such tide marks is much less frequent with SiOOX applied than without a SiOOX, for example on bare wood. But SiOOX also has advantages in this aspect compared to treatment with oils and acrylates. If SiOOX is applied on old wood with blackened parts, much of these black parts will be dissolved and disappear to a big extent with time.

FUNGI AND ALGAE

In the early stages with new timber, particularly the resinous timbers such as larch and cedar, extracts from the timber rise to the surface where they can attract dirt and this along with moisture can result in a food source for stain fungi to grow on the surface. SiOO:X protects the timber from any fungal penetration and fungal decay but algae can develop on the surface in some circumstances, particularly in shaded north facing aspects and when there is a high degree of moisture and or adjacent vegetation. Where this occurs, when possible, the surface should be cleaned. Over time as the timber matures the emission of extracts will cease.

Airborne fungal spores and especially mold spores are a normal component of the outdoor air. Spores are released into the environment from fungi growing on dead or decaying organic matter in the soil or elsewhere in the environment. Fungal spores can settle on surfaces and can germinate when moisture or high humidity is present. This can occur on non-biocide treated timber and even with biocide treated timber, as the biocide leaches or deteriorates with time. If fungal spores colonies are found on SiOO:X treated timber, they should be cleaned away with SiOO:X Maintenance wash and/or XMould, at an early stage.

A horizontal surface such as decking are more prone to be affected by the accumulation of dirt and needs to be periodically cleaned.

CLEANING AND MINOR SURFACE REPAIRING

The cleaning of SiOO:X treated surfaces is much easier, as the surface is toughened by the treatment and cracking and splinting is reduced. The resulting smooth lustrous surface facilitates effective maintenance.

The SiOO:X system creates a mechanical barrier that prevents algae and spores from penetrating the wood. Because SiOO:X does not contain any strong toxins it cannot prevent black spores from settling on the surface. Periods of rain or damp weather are especially favorable for these airborne spores, which can often be found on areas of wood that are in the shade or exposed to the weather. Black spores need nutrients to grow, and they get these from natural sugars in the wood. These substances are leached out of the wood in the first 1–4 years. The presence of black spores also decreases as the SiOO:X silicon shield matures and gets stronger.

Regular brushing and occasional washing away of leaves, soil or debris will keep the surface clean and defend against algae growth. When necessary, and if there is algae growth or black spores on the surface, use XMould. The product is specially developed to cooperate with SiOO:X-treated surfaces and is fully compatible with the SiOO:X system and keeps the silicon-based wood and surface protection intact. It is also gentle on other surfaces.

Cleaning also gives a good opportunity to inspect the surface to see if there is any damage to the surface from operational wear, such as scratching or scuffing. Minor surface damage can be repaired by applying the SiOO:X Premium Surface Protection (pigmented or unpigmented) to the affected area. Where the integrity of the surface treatment has been breached through physical damage, apply SiOO:X Premium Wood Protection once to the affected area, followed by the SiOO:X Premium Surface Protection. The colour of the repaired area will blend back to the surrounding timber over a short time.

Keep in mind that: Cladding should not be cleaned in the first year as the surface protection is particularly vulnerable then.

CLEANING LEVELS – SiOO:X TREATMENT ON CLADDING

Always wear protective gloves, eye protection and head protection if needed.

Light superficial dirt

A: Carefully brush the surface with a soft brush and be particularly gentle with Panel Colours to avoid damaging the pigments. Make sure the surface is free from dust, pollen and loose particles.

B: If necessary, clean gently with **SiOO:X Maintenance Wash (PH7)**. Avoid products with a pH lower than 5 or higher than 8, as they impair the performance of the surface protection. Never wash with soft soap, a high-pressure washer or the like, as this will damage the SiOO:X treatment.

Note! Cladding should not be cleaned in the first year as the surface protection is particularly vulnerable then.

B1. Dilute 1 part Maintenance Wash in 8 parts of lukewarm water. 1-liter diluted Maintenance Wash is sufficient for approx. 125–250 square meters. If it is very dirty use 2 parts of Maintenance Wash.

B2. Apply the diluted product to a surface and leave for 20 minutes.

B3. Rinse well with water.

B4. Leave the surface to dry.

Heavier superficial dirt

C: If cleaning according to step B was insufficient, or if more stubborn surface growth, such as black spores and algae, this can be treated with **XMould**. The product is specially developed to cooperate with SiOO:X-treated surfaces and is fully compatible with the SiOO:X system and keeps the silicon-based wood and surface protection intact. It is also gentle on other surfaces.

C1. Dilute 1 part of XMould with 4 parts of water. 1-liter diluted XMould is sufficient for approx. 20 square meters.

C2. Spray on the diluted XMould fluidly so that the product penetrates the surface. It can also be applied with a brush. Use safety glasses, waterproof gloves, and a respiratory protection.

Protect adjacent metals, glass and plants (wipe up any spills). Use at temperatures above 0°C.

C3. It is important that the product is allowed to dry slowly as it is active when wet. Do not use any drying equipment and protect the treatment from direct sunlight and rain.

C4. Do not rinse off!

C5. Carefully brush the surface with a soft brush and be particularly gentle with Panel Colours to avoid damaging the pigments.

After about 3–7 years...

(If necessary), apply a second coat of SiOO:X Panel (Colour) Surface Protection, after cleaning with SiOO:X Maintenance Wash.

After about and up to 15–18 years...

Clean the surface with **SiOO:X Prewash** and repeat the entire treatment as made the first time. Read more at sioox.com.

CLEANING – SiOO:X TREATMENT ON DECKING

After applying SiOO:X to your decking you will need to clean the wood surface as needed to keep the wood healthy and maintain an attractive grey luster for many years. One tip is to do any necessary maintenance on your decking at the start and end of the season. This minimizes the risk of growth during winter and makes maintenance easier.

Keep in mind that: SiOO:X Premium Wood- and Surface Protection are transparent. The original colour of the wood will show through when the decking is wet. SiOO:X-treated decking should therefore only be assessed when it is dry. Areas that are in the shade do not dry as quickly, which accelerates the growth of algae and the like.

CLEANING LEVELS

Always wear protective gloves, eye protection and head protection if needed.

Light superficial dirt

A. Dry-brush the surface with a brush to remove superficial dirt.

B. If further cleaning is needed in addition to dry brushing, apply **SiOO:X Maintenance Wash**. Avoid products with a pH lower than 5 or higher than 8, as they impair the performance of the surface protection. Never wash with soft soap, a high-pressure washer, as this will damage the SiOO:X treatment.

B1. Dilute 1 part Maintenance Wash in 8 parts of lukewarm water. 1-liter diluted Maintenance Wash is sufficient for approx. 125-250 square meters. If very dirty, use 2 parts of Maintenance Wash.

B2. Apply the diluted product to a surface and leave for 20 minutes.

B3. Rinse well with water.

B4. Leave the surface to dry.

Heavier superficial dirt

C: If cleaning according to step B was insufficient, or if more stubborn surface growth, such as black spores and algae, this can be treated with **XMould**. The product is specially developed to cooperate with SiOO:X-treated surfaces and is fully compatible with the SiOO:X system and keeps the silicon-based wood and surface protection intact. It is also gentle on other surfaces.

C1. Dilute 1 part of XMould with 4 parts of water. 1-liter diluted XMould is sufficient for approx. 20 square meters.

C2. Spray on the diluted XMould fluidly so that the product penetrates the surface. It can also be applied with a brush. Use safety glasses, waterproof gloves and a respiratory protection. Protect adjacent metals, glass and plants (wipe up any spills). Use at temperatures above 0°C.

C3. It is important that the product is allowed to dry slowly. Do not use any drying equipment and protect the treatment from direct sunlight and rain.

C4. Do not rinse off!

C5: Carefully brush the surface with a soft brush.

D. The strongest and most effective cleaning treatment is **SiOO:X Prewash**. This will not affect the wood protection (step 1), but it will remove the surface protection (step 2), which will need to be reapplied.

D1. Dilute 1-part SiOO:X Prewash with 4 parts of water for normal cleaning. 1 litre concentrate is enough for 20–50 m²

D2. Rinse the surface with water.

D2. Apply with SiOO:X Prewash with a paintbrush, cleaning brush or sponge, and leave for up to 10 minutes.

D3. Scrub with a brush or high-pressure washer with a rotating head (decking).

D4. Rinse with water and let the wood dry. **NOTE! This dissolves and removes SiOO:X Surface Protection. It is therefore important to reapply SiOO:X Surface Protection again.**

Very heavily soiled

In the case of heavy growth, graffiti, grease, or other discoloration it can only be removed by scrubbing with **SiOO:X Prewash** as described above, you will need to repeat the entire SiOO:X treatment again (Wood Protection and Surface Protection).

After about 12–18 months...

It is time to apply a second coat of SiOO:X Surface Protection to the deck, after cleaning with **Maintenance Wash**.

After about 12 years....

Clean the surface with **SiOO:X Prewash** and repeat the entire SiOO:X treatment as made the first time.

IMPROVEMENT DURING THE LIFE SPAN

Particularly exposed surfaces can be improved, and small areas of damage can be repaired by re-coating with the SiOO:X. You can do this for the entire surface or in patches. With applying extra SiOO:X products during the life span the, the visual look will be brighter and the general quality can be improved, even though the general function is still there. The grey pigment is superficial and is easily washed off but will be restored after a few months and the surface will become more uniform.

REPAIR

If the wood surface has been scratched and exposed, apply two coats of SiOO:X Wood Protection and one coat of SiOO:X Surface Protection. For best results, follow the product instructions, directions, information and national building standards.

Note! For detailed cleaning instructions, please see information on each product label. Also follow the information provided in the SDS documents.

For more information about treatment and maintenance, and inspiring ideas and advice, please visit sioox.com.

Information is subject to change without notice. Sioo retains the right to update the data sheet as it deems appropriate, and the user is responsible to check for updates at sioox.com before using the product. It is not possible for Sioo to warn the user about every possible danger related to use of the product and the user must use common sense and good judgment. Please contact Sioo with any questions or concerns before using the product.