****** 

**Cleaning and Maintenance – looking after your project**
Wood is a natural material and even when treated with a wood protection or a preservative 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. Although the Sioo:x treatment provides protective resistance to the penetration of algae and fungi, in humid climates such as the UK and Ireland, they can in some locations take hold on the surface and have a negative aesthetic effect.

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 any early stage algae or fungal spore through a regular care and maintenance programme will lead to a sustained beautiful appearance. The majority of projects see no impact – it is a matter of particular environments.

**Cleaning**

Just as you would not allow flooring or other surfaces in your home to accumulate dirt and dust, timber decking, cladding and fencing require care to keep them looking at their best. 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. 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 on the surface, use a surfactant cleaner such as the SiOO:X Maintenance Wash to remove any algae and staining.

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 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.

**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 as a result of exposure to sunlight, particularly ultraviolet  (UV) light, and 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 can include tannins in oaks 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 is can occur more often on vertical surfaces such as cladding. In areas near overhangs or areas not directly exposed to the weather, tide marks are likely to persist as it will take longer for the extractives to be leached from the surface of the timber at these locations. If tide marks occur on SiOO:X treated timber, they are easy to remove using the SiOO:X Maintenance Wash or a common household detergent. Once water soluble extractives have fully leached, there will be no further development of tide marks.

**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 develope 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. When this occurs, where possible, the surface should be cleaned. Over time as the timber matures the emission of extracts will cease.

**Airborne fungal spores** and especially mould 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 colonise on SiOO:X treated timber they should be cleaned away with a fungicide remover at an early stage.  After removing the fungi it is recommended to apply another coat of the Surface Protector to the affected area.

Horizontal surfaces such as decking are more prone to be affected by the accumulation of dirt and need to be periodically cleaned.