



NAUTILUS INNOVATION

# Timber Care and Treatment

Preparation, treatment and care for exterior timber in tropical and marine environments

Ritz-Carlton Maldives, Fari Islands · Kerry Hill Architects · Nautilus Innovation with Venturer Timberwork

A Nautilus Innovation™ Brand  
**DEKLOG**  
Commercial Decking Systems

**PATINA+**™  
SILICATE TIMBER TREATMENT  
by NAUTILUS INNOVATION

30 August 2026

## THE PROBLEM

### Timber in the tropics does not stay as specified

Exterior timber on a resort silvers, picks up salt and atmospheric grime, and develops black spot in shaded and damp areas. That is not a failure. It is what timber does, and on most projects the silvered look is what the architect wanted in the first place.

The difficulty is what happens next. Once a facade has gone patchy rather than evenly silver, or a deck has picked up iron staining from a fixing, the standard answer is to sand it. Sanding is expensive, it is disruptive to an operating hotel, and it is finite.

**4**

passes over the surface with a conventional silicate system, once the two coat wood protector is counted

**70 to 85%**

of the cost of cleaning timber is labour and access, not chemical

**Finite**

number of times a board can be sanded before it must be replaced

Sanding removes material thickness that cannot be put back. On a profiled or textured board it destroys the profile. On cladding at height it means scaffold or rope access for a second time. And it can only be done a limited number of times in a building's life before the boards have to be replaced entirely.

*The chemical is five to twelve per cent of what it costs to clean timber. Everything else is people, access and time. That is where a range like this has to earn its place.*

## WHERE THIS COMES FROM

### Thirty years of timber, ten years of silicates

Nautilus Innovation supplies timber technology into resort, hospitality and public projects across Asia, the Indian Ocean and the Caribbean, with thirty years of commercial timber delivery through Venturer behind it.

#### The Dekloc system

Dekloc is a commercial decking system with a twenty year history. Certified naturally durable hardwood, uniquely detailed and customised for off site manufacture by licensed partner manufacturers, delivered as a panelised system rather than as loose boards fixed in place. It is in service on resort, hospitality and public projects across the region and is currently in production for a resort under construction in Belize.

The preparation products in this range come out of that system, and exist because the same questions arose on every project: how the timber is cleaned before finishing, how a weathered surface is brought back without sanding, and how both are done by a crew at height on an island rather than in a workshop.

## TEN YEARS WITH SILICATES

### We know silicates

Fari Islands set the reference for silicate treatment on a tropical resort. In 2020 we specified and delivered the largest silicate application in the Maldives, on the Ritz-Carlton with Kerry Hill Architects: three thousand cubic metres of mass engineered timber, villa envelopes and front of house, installed over fourteen months.

The treatment was not our product and we do not claim it was. What we claim is the delivery, and what came with it: six years of knowing exactly what a silicate system asks of a resort.



*Silicate treated timber at Fari Islands. Screens, cladding and villa envelopes across the resort, delivered by Nautilus Innovation and Venturer Timberwork.*

### What three stages costs on an island

A three stage system means three separate applications in sequence. On a Maldivian island each one is a mobilisation: a boat, a crew, accommodation, access equipment and a weather window wide enough to get the coat on and dry before the next squall.

Miss the window and the sequence stalls, because stage two cannot go on until stage one has dried. The crew waits, or the crew leaves and comes back. Either way the programme moves and the cost moves with it.

Then it recurs. Reapplication is the same three stages again, on a resort that is now operating, with guests in the villas and access booked around them.

*A single application is not a refinement of a three stage system. On a remote site it is what the situation actually requires, and until now it did not exist.*

### Which is why we are pushing this forward

**We are delighted to have partnered with the Finnish inventor of a single application silicate, manufactured in Singapore, to bring it into the sector that Fari Islands opened.**

One product. One pass. One drying window. The same silvered finish architects have been specifying since Fari, delivered in a third of the site time.

## THE RANGE

# Four products, one cycle

The range covers an exterior timber surface across its whole life, from bare board through treatment to the annual clean. Two brands, two chemistries, and a clear rule about which goes where.

| PREPARE                                                                                                                    | RESTORE                                                                                              | TREAT                                                                                                   | CARE                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>DEKLOC™</b><br><b>MTCE Wash +</b><br>Bare timber, new or weathered. Removes mill glaze, machine oils and handling grime | <b>DEKLOC™</b><br><b>Brightener</b><br>Bare, oxidised, iron stained. Restores colour without sanding | <b>PATINA+</b><br><b>Patina+</b><br>Prepared bare timber. Single application mineral silicate treatment | <b>PATINA+</b><br><b>Care Wash</b><br>Silicate treated. Annual clean without acid attack on the treatment |

|            | Prepare and Restore    | Treat                      | Care               |
|------------|------------------------|----------------------------|--------------------|
| Brand      | Dekloc™                | Patina+                    | Patina+            |
| Chemistry  | Acidic                 | Alkaline silicate          | Mild alkaline      |
| Format     | Powder concentrate     | Liquid                     | Powder concentrate |
| Applied by | Contractor             | Contractor                 | Facilities team    |
| Frequency  | Once, before finishing | Once, long recoat interval | Annually           |

Dekloc prepares bare timber. Patina+ treats it and keeps it. The Dekloc products are never used on a treated surface, and the Care Wash is never used as a preparation product. That separation is deliberate and it is printed on every label.

*Preparation is a one time sale per building. Cleaning a treated surface happens every year for the life of the building. Most suppliers sell you the first and leave you to work out the second.*

A Nautilus Innovation™ Brand

# DEKLOC

Commercial Decking Systems

## PREPARATION

### Getting the surface right before anything goes on it

Timber that has been machined, handled, stacked and shipped does not accept a finish evenly. Mill glaze closes the surface. Machine oils repel water borne treatments. Handling grime sits in the grain. A treatment applied over any of that absorbs patchily, and the result shows up months later as an uneven facade.

#### Dekloc MTCE Wash +

Heavy duty timber washing powder. Removes mill glaze, machine oils, handling grime and surface contamination from new and weathered bare timber, so that finishes, oils and mineral treatments absorb evenly across the board.

#### Dekloc Brightener

Timber oxidation and weathering restorer. Lifts the grey oxidised surface layer, removes iron staining and black spot, and evens out colour variation across a facade or a deck.

It restores colour chemically rather than mechanically. The section, the profile and the surface texture stay intact, and it can be repeated through the life of the building. That is the whole commercial case, and it is not about the price of the chemical.

### Both products

| Format       | Concentrated powder. Water added on site                                                                                                      |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Composition  | A proprietary blend of organic cleaning compounds, pH buffers and non solvent surfactants, with a chelating agent for hard and brackish water |
| Free from    | Bleach, VOCs and corrosives                                                                                                                   |
| Dilution     | 10 to 12 litres of water per kilogram                                                                                                         |
| Coverage     | 175 to 210 square metres per 4.2 kg pail                                                                                                      |
| Suitable for | Bare, uncoated timber only. Hardwood, softwood and thermally modified                                                                         |
| Not for      | Coated, oiled or silicate treated surfaces                                                                                                    |

*A 4.2 kg pail replaces around fifty litres of shipped liquid for the same coverage. On an island project that is the difference between a pallet and a parcel.*

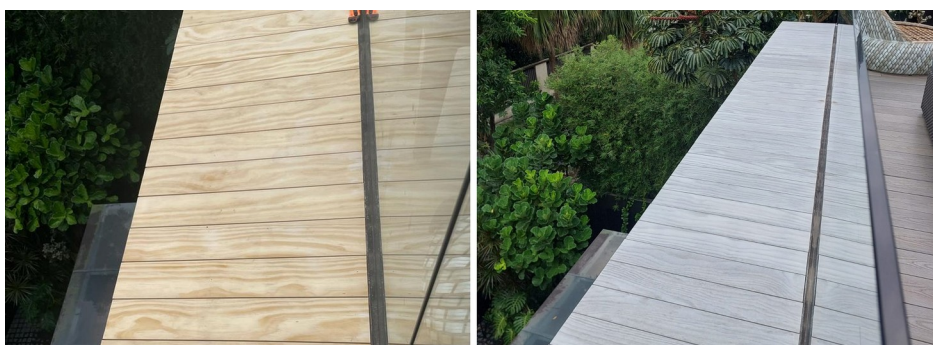
## TREATMENT

### One application where three were needed

Patina+ is a water borne mineral silicate treatment for exterior timber. It penetrates the fibre and forms a mineralised barrier that improves durability and weathering resistance, and it develops an even silver grey patina across the surface.

Conventional silicate systems apply in three stages: a pre wash, a wood protector, then a surface protector or catalyst. Because the wood protector is a two coat application, that is four passes over the same surface, each with its own drying window.

Patina+ is a single application. With preparation, that is two passes rather than four.



The same balcony deck, at application and established. The patina forms under exposure, not on the day it is applied.

**2**

passes over the surface, against four

**8 to 12 m<sup>2</sup>**

per litre, depending on species and absorbency

**Non-DG**

for transport across ADR, IMDG and IATA

### What that changes

- Site time. Two passes over the elevation instead of four, with half the access mobilisations and half the weather windows.
- Labour. On a facade the application labour is the dominant cost. Halving the passes halves it.
- Freight. A conventional system ships around 47 litres of liquid to treat 100 square metres. Patina+ ships 12.5 litres, and the preparation products ship as powder.
- Installed cost per square metre. Once labour and access are counted, the finished cost falls by roughly a third.
- Upkeep. One product to reapply rather than a system to rebuild. Between recoat intervals the surface only needs cleaning.

### New timber and renovation

The same treatment goes on a new facade before handover, or on a building that has been standing for twenty years. What changes is the preparation step in front of it, not the treatment itself.

That matters commercially. New build is one pipeline. Every existing timber building that has weathered unevenly, or carries a coating nobody wants to keep maintaining, is another one, and it is considerably larger.

Whether the timber is bare or already treated, the sequence is two passes.

|              | Bare or new timber               | Previously treated surface |
|--------------|----------------------------------|----------------------------|
| First pass   | Dekloc MTCE Wash + or Brightener | Patina+ Care Wash          |
| Second pass  | Patina+                          | Patina+                    |
| Total passes | 2                                | 2                          |

**Patina+ may be reapplied over previously applied Patina+ surfaces following cleaning and full drying. On timber previously treated with another mineral silicate system, a trial panel is required to confirm absorption and conversion before general application.**

## Technical

| Composition | Soluble silicates, silica, organic acids, inorganic ions and natural pine botanical oil. Water borne |
|-------------|------------------------------------------------------------------------------------------------------|
| Free from   | Heavy metals, toxic biocides, olive and vegetable oils                                               |
| pH          | 10.0 to 12.0, alkaline                                                                               |
| Coverage    | 8 to 12 square metres per litre. Quote on 8, the conservative end                                    |
| Drying      | Touch dry 2 to 4 hours at 25 degrees C. Full cure 12 to 24 hours                                     |
| Formats     | Two part concentrate for freight efficiency, or ready to use liquid                                  |
| Origin      | Developed, formulated and blended in Singapore                                                       |

*The silver patina develops progressively under exposure rather than immediately. Rate of development depends on the species, the orientation of the elevation and the degree of ultraviolet and moisture exposure. Where a specific rate matters to a project, we run a trial panel in the actual exposure and assess it before the full application is specified.*

## THE DISTINCTION

### A treatment, not a coating

This matters more than it sounds, and it is the reason architects specify silicate rather than a stain or an oil.

#### What a coating does

A coating is a film. It sits on the timber, it has an edge, and it has a service life. When it reaches the end of that life it does not fade gracefully. It chinks, it crazes, it lifts at the edges and it peels, and it does so in patches, on the elevations that took the most sun and rain.

Renewal means stripping. Mechanical or chemical, both destructive, both expensive, both disruptive to an operating hotel. And every cycle takes a little more off the timber.

A coating also changes what you see. You specified timber. The building shows a film over timber.

## What a treatment does

Patina+ is absorbed. It mineralises within the fibre and leaves nothing on the surface. There is no film, so there is no edge, no delamination, no peeling and no stripping.

**The grain, the texture and the tactility are unchanged. Run a hand over a treated board and it feels like timber, because it is timber. The material stays honest.**

And the failure mode is benign. A coating that has failed is a defect a guest can see. A treatment that is due for renewal simply looks like weathered timber, which is what it is.

|                    | Coating                          | Silicate treatment         |
|--------------------|----------------------------------|----------------------------|
| Where it sits      | On the timber, as a film         | In the fibre, as a mineral |
| Appearance         | Film over timber                 | Timber                     |
| Texture            | Sealed, altered                  | Unchanged                  |
| Failure mode       | Chalks, crazes, peels in patches | Weathers evenly            |
| Renewal            | Strip, then recoat               | Clean, then reapply        |
| Effect over cycles | Timber lost at each strip        | Nothing removed            |

*For a resort facade with a twenty five year design life, that difference decides whether the building ages or dates.*

## THE TECHNOLOGY

### The wood does the work

Most silicate systems have a problem: the silicate has to be converted into a mineral, and the wood will not do it on its own. So the conventional answer is a separate catalyst, applied as a further coat once the silicate is down. That is why those systems run to three products and four passes.

**Patina+ does not need one. The silicate reacts with the natural tannins already present in the timber, and cures in the fibre rather than on top of it. The wood is the catalyst.**

## What that changes

- Absorption. Because conversion happens in the fibre and not at the surface, the silicate keeps travelling into the timber while it cures. Multi stage systems convert from the outside in, which limits how deep the mineral ever gets.
- One product. No catalyst coat, no sequencing, no window in which stage two must follow stage one.
- Nothing on the surface. There is no film, so there is no film to weather, crack or peel.
- The process accelerates under moisture and ultraviolet. Rain and sun are not the enemy of the finish, they are what drives it. This is a treatment suited to exposure, not protected from it.

*Conventional systems fight the weather. Patina+ uses it. The same rain and sunlight that grey untreated timber are what drive the mineralisation, which is why an exposed elevation develops faster than a sheltered one.*

## A collaboration

Patina+ is not a product we bought in and rebadged. The silicate is the work of its Finnish inventor, developed over years of Nordic exposure where timber has to survive freeze, thaw and a long wet season.

Nautilus Innovation collaborates with him to bring it to the resort and hospitality sector: buildings where the timber is fully exposed, the client is demanding, the maintenance has to be planned rather than improvised, and getting it wrong is visible to every guest.

**It goes on new timber and on old timber alike. A facade before handover, or a building that has been standing for twenty years. The treatment does not change. Only the preparation in front of it does.**



### Finnish technology

Developed by its Finnish inventor, proven across Nordic exposure before it came to the tropics.



### Held in Singapore

Formulated and blended here. Formulation questions are answered in the same time zone as the projects.

## IN SERVICE

## Two climates, one product

Silicate treatment behaves the same way in equatorial heat and humidity as it does in a Nordic winter. What changes is the rate at which the patina develops, not whether it does.

### New timber, Finland

Pressure treated pine boardwalk, the same run of boards at application and after exposure. No maintenance between the two photographs.



*Left, at application. Right, the same boardwalk established. Softwood pine takes the treatment as readily as hardwood, which matters where budget rules out a durable species.*

### The same job, two hemispheres

Left, pressure treated pine pool deck in Finland, new build. Right, twenty year old cedar cladding in Singapore, restored and re-treated in place. Same product, same single application, opposite climates.



New build, Finland. Pine, exposed since application.



Twenty year old cedar siding revitalised with Patina+. Sentosa, Singapore.



## CARE

### The annual job nobody had a product for

Atmospheric grime, salt deposits and light biological growth build up on any exterior timber, obscuring the patina and holding moisture against the surface. Removing them once a year keeps the building looking as specified and extends the interval before any re treatment.

*The problem is what to clean it with. Acidic cleaners, including the preparation products used on bare timber, attack the silicate structure. So do chlorine bleach and percarbonate cleaners. A treated surface needs an alkaline cleaner formulated for the job, and until now that product did not exist.*

#### Patina+ Care Wash

Alkaline timber cleaner. Routine cleaning of Patina+ treated surfaces, and also suitable for use on other mineral silicate treated timber.

| Format       | Concentrated powder. Water added on site                  |
|--------------|-----------------------------------------------------------|
| Composition  | Mineral silicate builders, alkaline salts and surfactants |
| Contains no  | Acid, chlorine bleach or percarbonate                     |
| Applied by   | Facilities or maintenance team. No specialist equipment   |
| Frequency    | Annually, or as exposure requires                         |
| Suitable for | Mineral silicate treated timber, including Patina+        |
| Not for      | Bare timber as a preparation product                      |

**Contains mineral silicate, chemically compatible with silicate treated timber, supporting the continued development of the natural silver patina.**

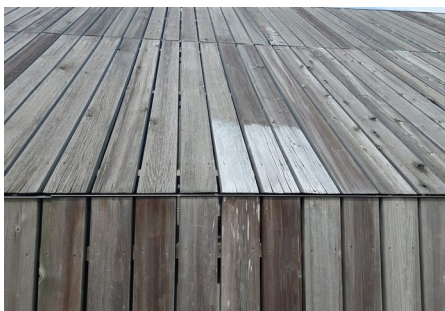


*Silicate treated pool deck in service. Grime, salt and light growth accumulate on the surface without affecting the treatment underneath. This is a cleaning job, not a recoating one.*

## HOW WE WORK

### Trial first, always

No project starts without a trial panel. It takes an hour and it is the only reliable way to know what a particular species in a particular exposure will actually do.



*The trial. One patch on twenty year old cedar, set against the untreated surround.*



*The building. The whole facade and roof treated on the strength of that patch.*

|   | Step                                            | Why                                                                         |
|---|-------------------------------------------------|-----------------------------------------------------------------------------|
| 1 | Substrate assessment                            | Identify what is on the timber now. This determines everything that follows |
| 2 | Trial panel, one square metre minimum           | Representative of species, orientation and weathering                       |
| 3 | Photograph before and after in consistent light | The reference standard for the rest of the works                            |
| 4 | Record actual coverage over the measured area   | Real consumption, not a calculated figure                                   |
| 5 | Written acceptance before proceeding            | Everyone agrees what the result looks like                                  |

## What comes with the products

- Technical data sheet for each product.

- Handling instruction sheet for each powder, with safety data sheets issued for commercial supply.
- Application method statement covering all four products, with substrate assessment, trial panel procedure, protection of adjacent work, working condition limits and seven signed hold points.
- Facility management care sheet for the annual clean.
- Evaluation samples for trial before any commitment.

## Ways of working together

| Model               | How it works                                                                                                 |
|---------------------|--------------------------------------------------------------------------------------------------------------|
| Project supply      | We supply direct to the project, with your contractor applying                                               |
| Distribution        | Buy at partner rates, resell in your market                                                                  |
| OEM and bundling    | Supply alongside your own timber products                                                                    |
| Applied maintenance | Joint delivery. We supply the chemistry into a maintenance programme delivered with our installation partner |

## NEXT

### Start with a trial

We will send an evaluation kit with enough of all four products to run the complete sequence on one small area, so your team can see prepare, restore, treat and clean on the same board.

## Kevin Hill

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*Always test on a small inconspicuous area before general use. Suitability and results depend on substrate, condition and application method, all of which are outside our control. The user is responsible for determining suitability for the intended use. Refer to the safety data sheet before use.*