

Surface Protection

Single stage mineral silicate timber treatment

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1. Description

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.

Nautilus has worked with silicate timber treatments for over ten years, specifying and delivering them on resort and hospitality projects where the client wants a uniform silvered facade rather than a coating that has to be stripped and redone. The systems available were effective but they shared one structural problem: three separate applications, in sequence, each needing its own mobilisation, its own drying window and its own crew day.

Patina+ came out of a collaboration with a Finnish inventor based in Singapore, and it exists to solve exactly that problem. It is a single stage application. It is manufactured by SurfaceTech Pte Ltd, Singapore, and supplied by Nautilus Innovation as Patina+.

One coat instead of three changes the arithmetic in four places at once: factory pre application, site application time, labour, and the total installed cost per square metre. It also changes the upkeep, because there is one product to reapply rather than a system to rebuild.

2. Composition

A proprietary blend of soluble silicates, silica, organic acids, inorganic ions and natural pine botanical oil. Water borne. Free of heavy metals, toxic biocides and olive or vegetable oils. Manufacturer stated.

3. Technical properties

From manufacturer technical data sheet TDS 2026.1, SurfaceTech Pte Ltd.

Property	Value
Appearance	Clear liquid
Odour	Mild, pleasant pine scent
pH	10.0 to 12.0, alkaline
Specific gravity	1.089 to 1.400 kg/dm ³
Viscosity	Under 50 mPa·s at 20°C
Solubility	100 per cent water soluble
Coverage rate	1 litre covers approximately 8.0 m ² , depending on wood porosity
Touch dry	2 to 4 hours at 25°C

Property	Value
Full cure	12 to 24 hours
Formats	Two part concentrate, or ready to use liquid
Transport classification	Non dangerous goods across ADR, IMDG and IATA

4. Substrate suitability

Suitable	Not suitable
Bare, clean, dry exterior timber	Timber with any film forming coating, paint or varnish
Hardwood, softwood and thermally modified timber	Oiled or waxed surfaces
Freshly prepared or restored timber	Damp or wet timber
Timber prepared with Dekloc MTCE Wash+ or Brightener, rinsed and dried	Interior joinery and floors

Absorption must be adequate at application. On thermally modified or factory fresh closed surfaces, light sanding or a preparation wash is required to open the fibre.

5. Application

- Surface must be clean, dry, and free of dirt, grease, and any previous film forming paint or varnish.
- Where reconstituting from concentrate, charge local water first, add Product A under agitation, then slowly add Product B. Do not reverse the sequence.
- Apply evenly using low pressure spray equipment, roller or brush. Ensure thorough penetration.
- Single coat. Do not overapply or allow pooling on horizontal surfaces.
- Touch dry in 2 to 4 hours at 25°C. Full cure over 12 to 24 hours. Protect from rain during this period.

6. Development of the patina

The silver grey patina develops progressively under exposure. Rate of development depends on the species, the orientation of the elevation, and the degree of ultraviolet and moisture exposure. Sheltered elevations and shaded faces develop more slowly than exposed ones.

Field experience indicates that as a single stage treatment the patina develops more gradually than with multi stage systems that carry a separate catalyst coat. Where a specific rate of development is required for a project, a trial panel in the actual exposure should be run and assessed before the full application is specified.

7. Storage and handling

- Store in tightly sealed original HDPE containers between 10°C and 30°C.
- Keep away from strong acids. Do not store alongside acidic preparation products.
- Do not store in aluminium, zinc, tin, lead or glass containers.
- Cover adjacent glass, aluminium and painted surfaces before application. Wipe spills immediately with a wet cloth.
- Wear gloves and eye protection. In case of contact with eyes or skin, wash with water.

Shelf life: refer to the container label and the manufacturer safety data sheet for the format supplied. Shelf life differs between the two part concentrate and the ready to use liquid.

8. Ongoing care

A treated surface should be cleaned periodically to remove atmospheric grime, salt deposits and light biological growth, which obscure the patina and hold moisture against the timber. Use Patina+ Care Wash, which is alkaline and will not acid attack the silicate structure.

Do not clean a treated surface with acidic preparation products, chlorine bleach or percarbonate cleaners.

9. Limitations

Always apply a trial panel and assess it in the actual exposure before proceeding with a full application. Colour, silvering rate and final appearance vary with species, density and exposure, and cannot be guaranteed from a sample panel in different conditions.

The information given is based on our testing and experience and is offered in good faith. Because substrate condition, existing coatings, water quality, dilution, dwell time, mechanical action and rinsing are outside our control, no warranty is given as to results obtained. The user must satisfy themselves as to the suitability of the product for their purpose by trial on a small representative area. Nautilus Innovation accepts no liability for damage to existing surfaces, adjacent materials or finishes. Compliance with the safety data sheet is a condition of use.