

PRODUCT DATA SHEET SILICIUM HT



A new generation sustainable and ecolabelled wood from OrganoWood

Silicium HT has evolved from our unique ecolabelled silicon technology, where we further enhance the durability of wood using a gentle, energy-efficient heat treatment.

The combination of both silicon and heat provides the wood with even better protection than is seen in wood treated solely with either silicon or heat. This is new technology for a new era. A non-toxic alternative to the usual pressure impregnated timber.

We continue to be inspired by nature's own method of fossilising wood, which makes it immensely durable. To manufacture Silicium HT we have combined a number of tried-and-tested technologies: silicon minerals, heat and a vacuum process.

We use silicon, which is one of the most common elements in the earth's crust, and a method called organocatalysis to enhance the durability of the wood and create a mineralisation deep inside it. We use heat and a vacuum process to dry the wood and improve the ability of silicon to penetrate deeper into it. Heat has, to a certain extent, a positive effect on the durability of wood. It both removes nutrients from the wood, which makes it more difficult for rot and fungi to take hold and spread, and reduces cracking in the wood's surface. Use of vacuum technology enables us to lower the boiling point of the process, which gives us the positive effects associated with heat treatment but without us having to expose the wood to detrimentally high temperatures. It also makes the process more energy efficient.

A perfect synergy. That over time produces a beautiful silver grey hue.

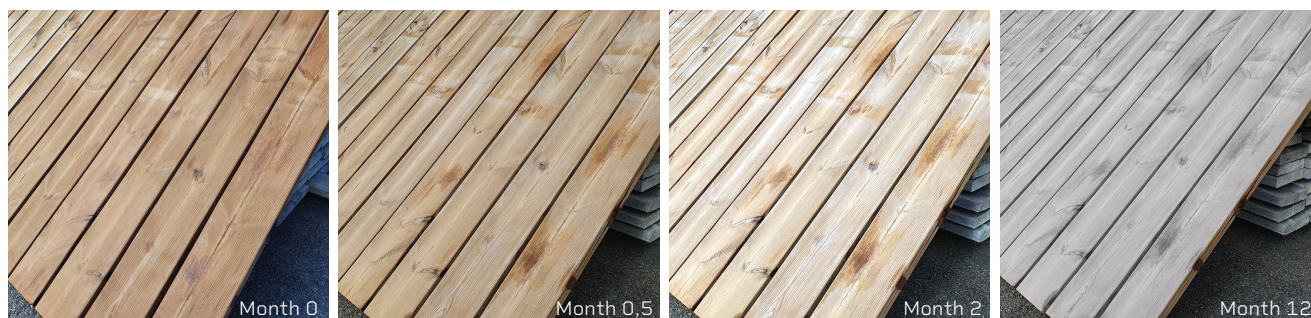


OrganoWood®

ASSEMBLY INSTRUCTIONS SILICIUM HT 28x120

THE COLOUR OF THE WOOD

Silicium HT starts out a deep brown colour, which is characteristic of heat-treated wood. However, this brown colour is not permanent, as the wood takes on a silver grey hue over time. Much like all other wood. This is a natural greying process that takes place when wood is exposed to the sun and moisture, although the silicon present in Silicium HT produces a slightly lighter grey hue. The length of time this takes depends on the conditions. In a very sunny location, it may take about a year, but in more shaded areas, it will take longer.



CC SPACING

For 28 mm thick decking, floor structures that will be subjected to a normal load require a maximum CC spacing of 600 mm between studs.

VENTILATION

The structure should be designed to ensure good ventilation in order to minimise problems with buckling. For installation on balconies or roof terraces, it is necessary to ensure that the timber is always given the opportunity to dry out properly and that there is no risk of litter or dirt collecting under the decking.

SAW CUT

If you have to cut the timber, make holes in it or prepare it in any other way, you must treat the exposed surfaces with OrganoWood 01. to maintain the rot protection. For optimum protection, we recommend that visible wood ends also be treated with OrganoWood 02.

HANDLING AND STORAGE

Store the timber so it remains dry. If storing timber outdoors, ensure that it is covered and protected from precipitation and ground moisture.

Ensure that the structure is professionally built; see the recommendations for installing decking from Svenskt Trä (Swedish Wood).

Extra treatment

To minimise the risk of surface growth, we recommend that you treat the wood with OrganoWood's surface treatment 02. Repellent. This also increases the wood's form stability and makes it easier to keep clean. Silicium HT Select Plus has already received an additional surface treatment using OrganoWood 02. Repellent.



GROUND AREA

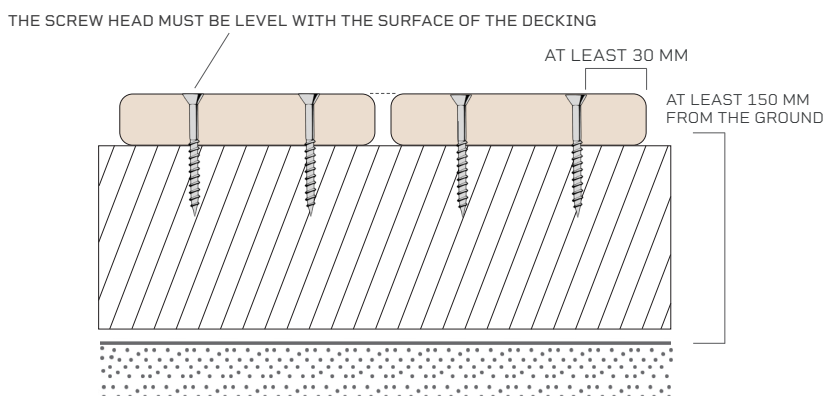
The ground below the decking must consist of draining material and be designed with a drop from the house. If there is a risk of rising ground moisture, then particular attention must be paid to this when designing the structure. Install the decking **at least 150 mm** from the ground.

Patios must also be designed to ensure they slope away from the house. Create a slight drop from the house; a sufficient drop is **approximately 1 centimetre per metre**.

SCREWS

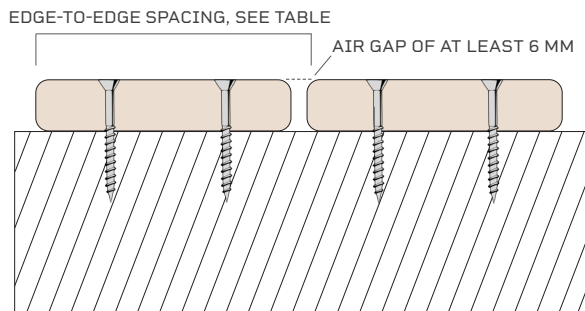
Generally, Silicium HT does not need to be predrilled, but no rule is without an exception... If you use decking screws within **30 mm** of the end of the board, you should predrill holes to reduce the risk of cracking. We recommend not using screws within **30 mm** of any edge.

Use good quality stainless steel screws in grade A2 or A4, or surface treated screws in grade C4. Insert decking screws perpendicular to the decking timber to ensure the screw head ends up level with the top side of the timber. Do not screw it down below the surface of the wood.



SPACINGS / AIR GAP

As wood is a living material that swells and shrinks in response to changes in the humidity and temperature of the surrounding air, it is important to always check the width of the wood carefully prior to installation to ensure an adequate air gap. Silicium HT is always delivered dry, and you should therefore always use an air gap between the boards of at least **6 mm**. See the accompanying table for exact spacings based on dimensions.



WIDTH (MM)	EDGE-TO-EDGE SPACING (MM)
116	122
117	123
118	124
119	125
120	126