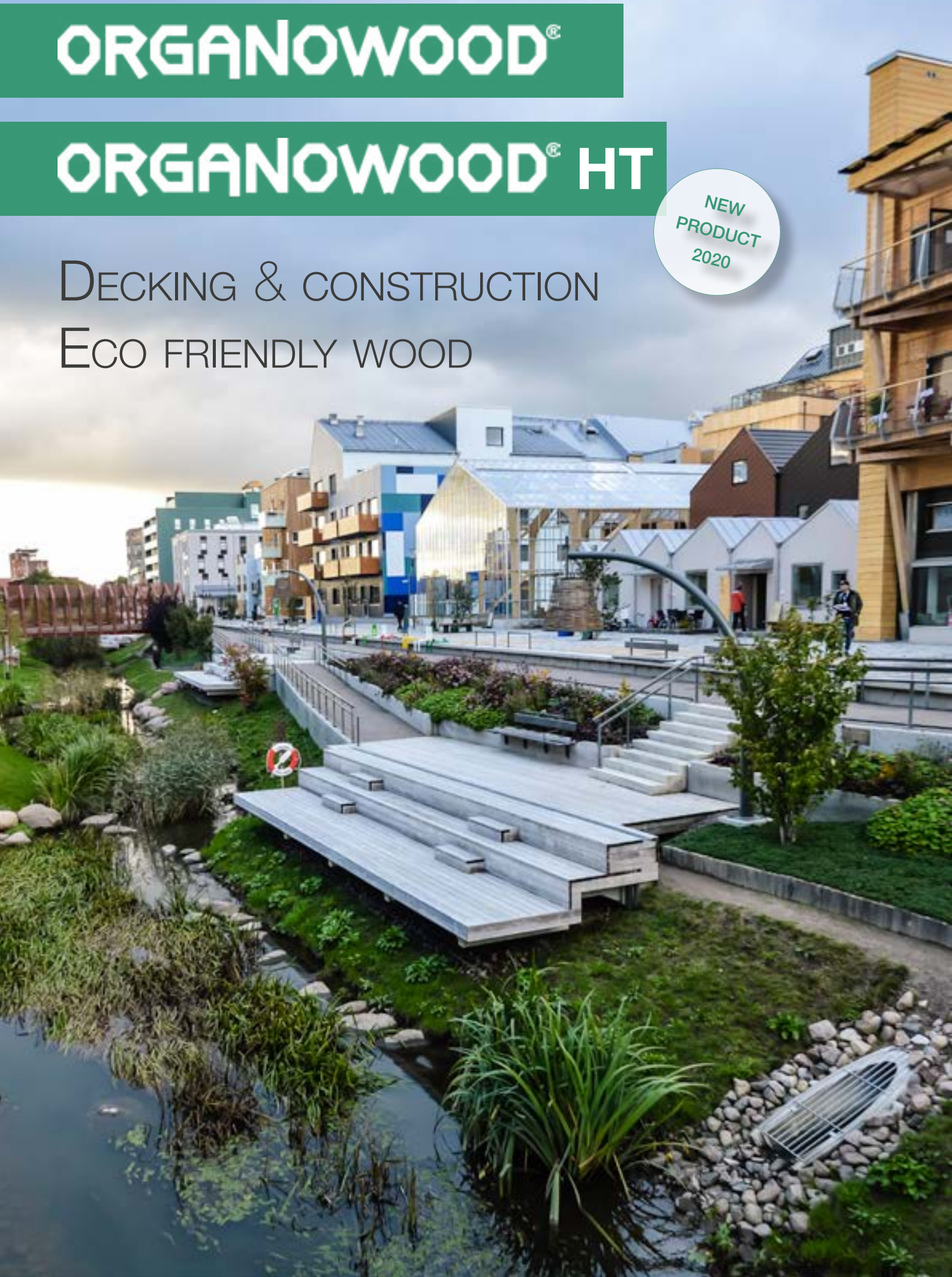


ORGANOWOOD®

ORGANOWOOD® HT

NEW
PRODUCT
2020

DECKING & CONSTRUCTION
ECO FRIENDLY WOOD



WHAT IS ORGANOWOOD®?

OrganoWood® is environmentally classified wood modified with silicon that gives a long life and a beautiful silver grey hue. The patented technology give the timber rot protection, creates a water repellent surface and improves the flame protection.

OrganoWood® withstands harsh environments and takes on a beautiful silver grey hue when exposed to the weather and wind. The timber is available as decking and construction timber as well as facade panels with a wide range of profiles.

Home owners, architects, builders and municipalities, to name but a few, are all attracted by the environmental profile and silver grey hue of OrganoWood®.



Patented technology



Sustainable



Eco Friendly



Swedish Innovation



Silvergrey

DISCOVER THE UNIQUE ORGANOWOOD® TECHNOLOGY

The process has been developed with inspiration from the natural fossilization process where minerals penetrate and mineralise organic materials. OrganoWood® is a patented Swedish innovation developed and produced in Sweden.

OrganoWood's technology is based on scientific breakthroughs in methods for modifying biofibres. Using the technology, silicon substances are bound to the wood fibres under high pressure. Penetration of the liquid occurs in the sapwood to create optimal protection. The patented modification of the timber creates an environment where wood-decay fungi do not thrive.

Plus treated OrganoWood® modified timber is dirt and water repellent, which gives better form stability, reduced risk of surface growth and a surface that is easier to clean.

Silicon substances attached to the wood fibre creating an environment that mineralises the organic material, which means wood-decay fungi do not thrive.

Water repellent molecules repel water drops from the surface of the fibre. Which creates a pearling effect on the wood.

OrganoWood® modified timber is protected against rot and water.



AARHUS HARBOR BATH
BUILT 2016

FACTS ABOUT WOOD

Pine is a soft wood that has many advantages as it is easy to work with and has a low density. OrganoWood® modified wood is dried to an approximate 18% target moisture ratio, which makes it easier than traditionally treated timber that is used outdoors.

OrganoWood® is primarily adapted for modification of pine and spruce. Pine is traditionally used for patios and structures and spruce for panels. These woods contain knots with a structure that can appear differently from instance to instance. As wood moves in relation to the air's moisture ratio and temperature, cracks can occur and the knots fall out during dry periods. Any cracks usually close up when the humidity increases.

Timber that is placed outdoors turns grey naturally but the greying process can appear differently during the seasons and depending on the weather conditions. In some cases the greying may initially be perceived as speckled or as dark

spots/fields, but this evens out relatively quickly. After about 1 year an OrganoWood® timber that is placed outdoors in direct sunlight already has a grey hue. In shadow this may take longer, but the end result is the same. Wood installed horizontally often has a faster greying process than wood installed vertically.

One effect that can occur on all types of timber placed outdoors and ages is so-called furring ("fibre fuzz"). Furring is a natural process in the timber's "cycle" and does not affect the characteristics of the timber. This is a phenomenon that diminishes over time. If superficial fibre fuzz occurs, this can be removed using a terrace brush when the patio is dry and treated with OrganoWood® O2. Repellent: Dirt and water repellent.

Pine swells/shrinks approx. 1% at 4% moisture ratio change. Therefore ensure that there is an air gap during installation.

MAINTENANCE AND SURFACE TREATMENT

OrganoWood® modified timber is naturally coloured and over time takes on a beautiful silver grey hue. We recommend surface treatment only using OrganoWood® O2. Repellent. Wood is a living material and requires more or less maintenance depending on the weather, wind and wear.

OrganoWood has developed three products which together create a complete wood preservative system. The products can be used just as well on OrganoWood® modified timber as on other timber, for example, traditional pressure impregnated wood, cedar, larch, etc. When using the OrganoWood wood preservative system on wood outdoors the wood takes on a harder, smoother surface and a beautiful silver grey hue.

ORGANOWOOD® APPLICATION AREAS

WHAT?

- » Patios
- » Facades
- » Jetties
- » Outdoor areas
- » Bridges
- » Garden furniture
- » Timber decking
- » Fencing
- » Pergola
- » Walkways
- » Noise planks
- » Constructions
- » Roof terraces

WHERE?

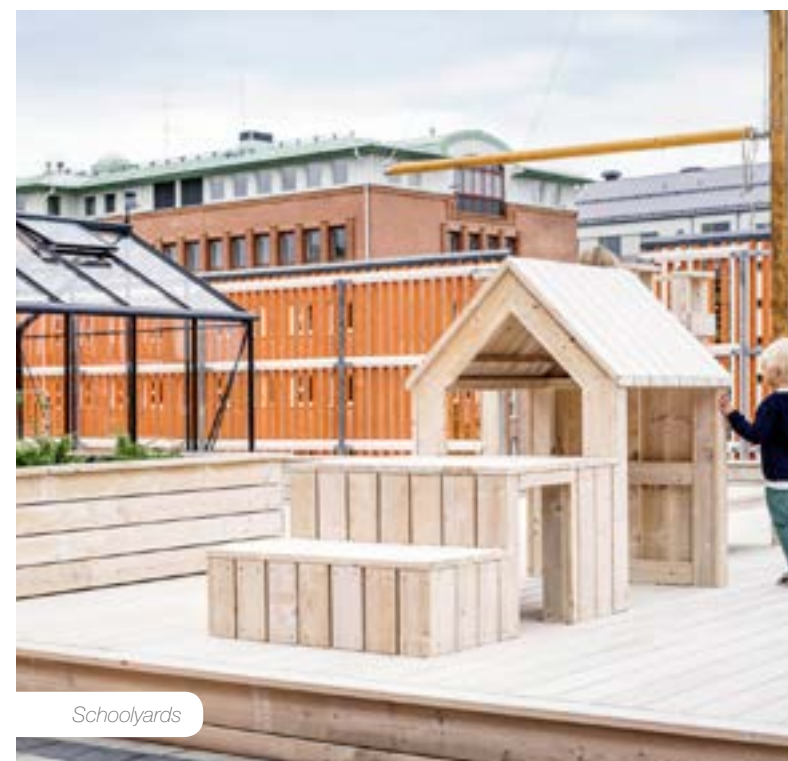
- » Houses
- » Balconies
- » Gardens
- » Apartment blocks
- » Schools/ preschools
- » Public environments
- » Parks/playgrounds
- » Nature reserves
- » Commercial environments



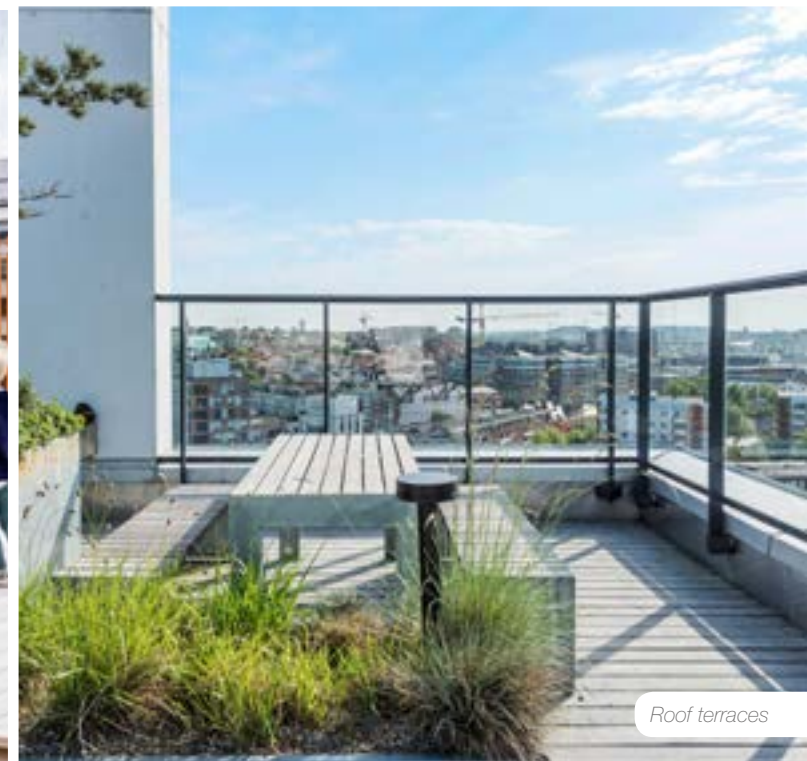
Jetties



Patios



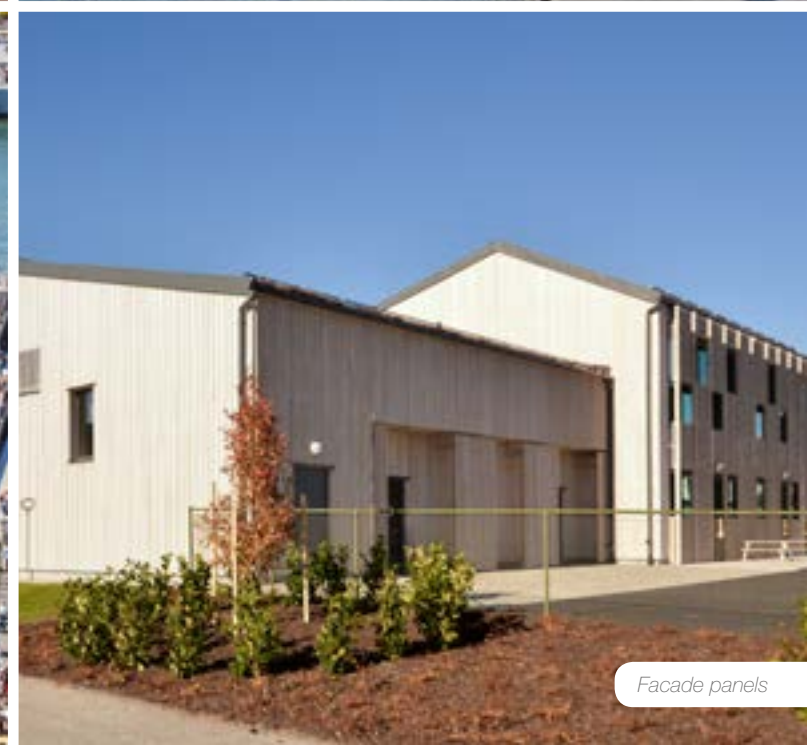
Schoolyards



Roof terraces



Public environments



Facade panels



ENVIRONMENTALLY CLASSIFIED TIMBER

OrganoWood®-modified timber has been developed to withstand harsh environments without the use of toxic impregnation substances. All substances in the products from OrganoWood® are non-toxic and can be returned to the natural cycle. So the timber does not need to be recycled as environmentally hazardous waste, but can be recycled as untreated timber according to local regulations. All substances in timber are classified as environment-friendly according to the CLP Regulation (EC no. 1272/2008).

OrganoWood's wood preservative products were the first wood preservative products in Sweden to be awarded the Swedish Society for Nature Conservation's (SSNC) ecolabel "Good Environmental Choice".

OrganoWood® modified timber is assessed by SundaHus and recommended by Byggarubedömningen and BASTA. The products are also registered in the Nordic Swan's house product portal and can be used in Nordic Swan Ecolabelled projects.

The technology used during the production of OrganoWood® was, among others, chosen as Sweden's best Environmental Innovation 2008 and was awarded Nordberg's "Hottest material news" 2014. The Group was elected "Climate Solver" by the World Wide Fund for Nature WWF 2010 and as a "Sustainia 100 company" 2015.

QUALITY AND SUSTAINABILITY

Sustainability

2013 an independent study was launched of different types of decking material and surface treatments by RISE and the Highways department in Malmö Stad. The aim was to compare performance by studying, among others, attack by microorganisms, crack formation and material deformation. The test indicates good sustainability in exposed environments.

Rot protection

Timber from OrganoWood® has well-documented rot protection, tested in the Rot protection test SS-EN 113. For natural sustainability according to SS-EN 350, OrganoWood® received class 1 i.e. highest sustainability. OrganoWood® has a 10-year rot protection warranty (see the warranty certificate).

Solar reflectance Index (SRI)

The so-called "Cool Roof" technology strives for a high SRI value, to keep heat transfer to buildings low and with that save costs related to cooling requirements. In addition it reduces the risk of creating urban heat islands. Light reflection and storage capacity are weighed together to a value on a scale 0-100. OrganoWood® received in the RISE (SP) test ASTM E1980-11 an SRI of 82.4 which is a very good value.

Certificate

All timber from OrganoWood® is FSC® (FSC-C120532) or PEFC certified.



ORGANOWOOD® DECKING TIMBER

ORGANOWOOD® BASIC

The pine raw material for OrganoWood® Basic modified decking timber comes from the best pine district in southern Sweden. Wood raw material from southern Sweden is characterized by its relatively quick growth, the decking therefore shows a greater variation of knots and a slightly smaller proportion of heartwood compared with raw material from the north.



DECKING

Dimensions (mm)

22 x 95
28 x 120

ORGANOWOOD® SELECT

The pine raw material for OrganoWood® Select modified decking timber comes from the best pine districts in the north of Sweden. The wood raw material from this district is characterised by its relatively high proportion of heartwood and that the knots are smaller and rounder in shape.



DECKING

Dimensions (mm)

28 x 120
28 x 145
34 x 145

ORGANOWOOD® SELECT PLUS

The pine raw material for OrganoWood® Plus modified decking timber comes from the north of Sweden and is an OrganoWood® sorting of raw material that creates a perception of a smoother and calmer appearance when compared to OrganoWood® Select. The timber has also been plus treated with OrganoWood® 02. Repellent. Dirt and water repellent, which gives greater form stability, reduced risk of surface growth and a surface that is easier to clean.



DECKING

Dimensions (mm)

28 x 120
34 x 145

ORGANOWOOD® MAGNUM PLUS

New for this year is Magnum Plus which is a heavier decking timber. The pine raw material for OrganoWood® Magnum Plus modified decking timber comes from the best pine district in central and northern Sweden. The timber has also been plus treated with OrganoWood® 02. Repellent. Dirt and water repellent, which gives greater form stability, reduced risk of surface growth and a surface that is easier to clean. 45 mm thick decking in two widths.



DECKING

Dimensions (mm)

45 x 145
45 x 170

ORGANOWOOD® CONSTRUCTION TIMBER

OrganoWood® construction timber is used for indoor and outdoor structures above ground. The rot protection has been tested by RISE (SP) in the European test EN 113. Studs are ideally used during the construction of timber decking together with OrganoWood® Decking.

ORGANOWOOD® STUDS

Dimensions (mm)

45 x 45
45 x 70
45 x 95
45 x 120, C24
45 x 145, C24
45 x 170, C24
45 x 195, C24
45 x 220, C24



ORGANOWOOD® BATTEN

Dimensions (mm)

28 x 45



GROOVED DECKING

Dimensions (mm)

28 x 120



ORGANOWOOD® HANDRAILS

Dimensions (mm)

34 x 145



ORGANOWOOD® POSTS

Dimensions (mm)

70 x 70
95 x 95



INSTALLATION INSTRUCTION FOR ORGANOWOOD® DECKING

To remember before starting

Carefully read through the installation instructions before installing. A detailed installation instruction is available at www.organowood.com.

- » Store the timber covered and well ventilated before installation.
- » When building with timber you must, as far as possible, avoid moisture traps, i.e. build so that the wood can always dry.
- » Always use an air gap between the boards of at least 7 mm for a width of 120 mm, at least 9 mm for a width of 145 mm and at least 11 mm for a width of 170 mm. Variations in the wood's moisture ratio (season variation) can affect the decking's actual dimensions, always check the width of the wood prior to installation to adapt the width of the air gap.
- » Use quality stainless steel screws in grade A2 or A4, or surface treated screws in quality C4.
- » When cutting, making holes and other minor processing of the timber, treat the surfaces with OrganoWood® 01. Protection and OrganoWood® 02. Repellent to ensure rot protection remains optimal.
- » The floor structure under the decking for 22 mm thick decking should have a maximum cc-spacing of 40 cm. For 28 mm and 34 mm thick decking the cc-spacing should be 60 cm.
- » OrganoWood® modified decking timber must not be painted over.
- » The decking should have a distance of at least 30 mm to the ground in order to avoid the moisture problem in the wood.
- » We recommend, in terms of the structure, that the floor is ventilated from below to minimise problems with buckling.
- » When soiled or unwanted superficial growth, wash the decking with OrganoWood® 03. Cleaner. After washing, it is recommended that the decking is treated with OrganoWood® 02.
- » We recommend surface treatment with OrganoWood® 02. Repellent every other to every third year or as required. You can test yourself and see when it is time to treat the decking. - Pour a little water on the decking, if the wood absorbs the water you need to surface treat with OrganoWood® 02. Repellent. If the water remains on the surface there is still some water repellent properties present, and the decking does not need to be treated.
- » Minimise streaking by drying, polishing or sanding. Or just let the weather and wind bleach them.

ORGANOWOOD® HT

OrganoWood® HT is a new unique innovation from OrganoWood that will be launched spring/summer 2020.

OrganoWood® HT is a two step process and a development of our current patented technology where we impregnate high-quality pinewood and spruce and then let the wood to dry in high temperature.

The technology is based on silicon, which is the second most common element of the earth's crust, which gives the wood better form stability and creates a mineralization that goes deep in to the wood and is bound to the wood fibers.

In the drying process we heat the wood up to a high temperature in a very quick and energy efficient way. A heat treatment has in itself positive properties on wood but in combination with the silicon impregnation OrganoWood® HT gets an even better protection than before. For instance nutrients will disappear during heating of the wood which leads to an environment where wood-decay fungi won't get attached and do not thrive. A heat treatment process is environmentally friendly and leads to less cracking and splintering in the wood. Since we add our silicon technology to the process, we combine two existing techniques that together create an even better protection for the wood.

OrganoWood® HT is a perfect synergy between our patented silicon technology and the proven heat treatment, together they create the next generation of durable wood.

ORGANOWOOD® HT SELECT

The pine raw material for OrganoWood® Select modified decking timber comes from the best pine districts in the north of Sweden. The wood raw material from this district is characterised by its relatively high proportion of heartwood and that the knots are smaller and rounder in shape.



DECKING

Dimensions (mm)

28 x 120
34 x 145

ORGANOWOOD® HT SELECT PLUS

The pine raw material for OrganoWood® Select Plus modified decking timber comes from the north of Sweden and is an OrganoWood® sorting of raw material that creates a perception of a smoother and calmer appearance when compared to OrganoWood® Select. The timber has also been plus treated with OrganoWood® 02. Repellent. Dirt and water repellent, which gives greater form stability, reduced risk of surface growth and a surface that is easier to clean.



DECKING

Dimensions (mm)

28 x 120
34 x 145

NEXT
GENERATION
OF DURABLE
WOOD!



MAINTENANCE AND SURFACE TREATMENT

OrganoWood® modified timber is naturally coloured and over time takes on a beautiful silver grey hue. We recommend surface treatment only using OrganoWood® 02. Repellent. Wood is a living material and requires more or less maintenance depending on the weather, wind and wear.

OrganoWood has developed three products which together create a complete wood preservative system. The products can be used just as well on OrganoWood® modified timber as on other timber, for example, traditional pressure impregnated wood, cedar, larch, etc. When using the OrganoWood wood preservative system on wood outdoors the wood takes on a harder, smoother surface and a beautiful silver grey hue.

OrganoWood® 01. Protection: Flame and rot protection is a water based wood preservative product that consists of silicon minerals and natural plant substances. The product can be used for surface treatment of virtually all untreated and pressure impregnated timber with few exceptions. The treated timber receives protection against rot attack and adds flame protective properties. The product should be used on OrganoWood® modified timber and on other untreated or treated wood where increased rot and flame protection are desired. The product is eco-labelled with the Swedish Society for Nature Conservation's "Good Environmental Choice".

OrganoWood® 02. Repellent: Dirt and water repellent used as final treatment in OrganoWood's wood preservative system and as maintenance treatment of OrganoWood's modified timber. The product gives the wood water and dirt repellent characteristics, reduced risk of surface growth and a surface that is easier to clean.

OrganoWood® 03. Cleaner is used to clean before treatment with the products in the wood preservative system, and for period maintenance. The product is eco-labelled with the Swedish Society for Nature Conservation's "Good Environmental Choice".



ORGANOWOOD®

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