Zwarthout | Shou Sugi Ban processing advice

This document is intended as a guide for the company or person responsible for the assembly of our charred wood. It contains important advice before and during assembly.

Shou Sugi Ban charring technique

The chemical composition of the wood changes during the Shou Sugi Ban charring technique. The wood becomes more stable and therefore more durable. However, the high temperatures in the oven also cause the wood to deform slightly. Deformed planks can be straightened out again by attaching them with screws.

Transport

Zwarthout | Shou Sugi Ban products should be handled and transported with the utmost care to avoid damage. We therefore always transport carbon layered products (Marugame, Naoshima, Omiyama and Yoroi) with protective bubble wrap between the planks.

As an additional precaution, the planks are not stacked higher than 80 cm. Complete packages are not stacked on top of each other, except when they are packed in a wooden crate.

It is possible that extra planks may be included with the delivery. These planks are not always completely perfect and are placed on the top layer of the package. If there are planks with imperfections in the package, a sticker is attached to the back of the plank.

Inspection

We ship our products with regular partners. Always check the cargo before and during unloading, e.g. the profile, the dimensions and the finish. If the products delivered do not correspond to the order, are damaged or do not meet aesthetic requirements, please contact us. We would be happy to resolve this together before the planks are mounted.

Acclimatisation (only applies to interiors)

Wood products react to changes in temperature and humidity. Wood for interior use should only be delivered when the building is wind and watertight, and the indoor climate is practically equivalent to average living conditions. Allow the wood to acclimatise until the moisture content has stabilised. This will ensure that the wood does not warp as much once it is assembled.

Storage

Our charred wood should be stored with care on the building site.
If the wood is not mounted immediately, protect it from rain and dirt by covering it.
If bubble wrap is placed between the planks when delivered, it should also be placed in temporary storage. Make sure that there are no other materials on the planks and packages that may cause damage. It is important that the wood is allowed to ventilate. Therefore, lay the planks horizontally, on supports, about 10 cm off the ground. Also here, the wood should not be stacked higher than 80 cm.

Finishing

The planks should first be cut to the right size before assembly. We recommend applying a (black) stain or sealer to the cut areas to prevent moisture from penetrating the wood. This will significantly increase the lifespan of the wood. Vertically mounted planks should be cut at an angle of 15° both at the top and at the bottom, so that no moisture is retained.

Screws

We recommend stainless steel screws with black heads for assembly. Stainless steel screws (Fe 410) should always be used for our Marugame product. The length of the screw depends on the thickness of the plank.
According to the SBR standards, the length of the screw for cladding is 3 times the thickness of the plank, and for open façade work it is 2 times the thickness. We can supply the screws on request.

Mounting

There are a few important pieces of advice we would like to share with you before mounting the wood.
As previously noted, our charred wood needs to be handled with care.
Be careful around

1. stairs and scaffolding, for example. Do not rest the charred wood against such places as it may cause damage. Damage can only be repaired by replacing the damaged plank.
2. Pre-drill each plank or mount with self-cutting screws. This will prevent the wood from splitting.
3. Number of screws:
   Plank width > 100 mm - 2 screws
   Plank width > 100 mm - 1 screw
4. Fixed screws: We strongly advise against using nails or nail guns, as this causes the carbon layer to crumble and the wood to split.
5. Screw position. There are two ways to screw the planks in place. The screws can be placed in a single line or along the grooves of the carbon layer to make them less visible.
   For both methods, fasten the screws 25 mm from the sides of the plank.
6. Depth of the screws. Pay attention to the depth of the screws. If screws are drilled too deep, it will damage the carbon layer, which will allow moisture to penetrate, and the bare wood may become visible. Moisture is also bad for the durability of the wood.
7. Trimming planks. The planks should always be shortened, as the charred ends are sensitive to moisture.
8. Back of the construction. This must be matched to the method of assembly: horizontal, vertical, panels or otherwise.
9. Dimensions of the rear slats. Maximum centre-to-centre measurement 600 mm and a thickness of 1.5 times the thickness of the plank.
10. Open façade. The rear slats and foil of all open façades should be black, so that no deviating colours can be seen in the joints.

11. Assembly of slats in accordance with the applicable regulations for façade panelling. This means:
    - The horizontal rear slats should be bevelled at the top at an angle of at least 15°.
    - The slanting side should taper down to the inner wall.
    - In the case of a ventilated open façade, the (vertical) planks should be mounted with a spacing of 7 mm or more.
    - The heads at the bottom and top should be bevelled at an angle of 15° and stained or painted black.

Cleaning

If any dust particles are visible on the wood, they can be removed with just a soft brush. We advise against using a high-pressure cleaner or hard brush, as this may cause permanent damage to the wood.

Black carbon particles on a painted wall can be polished off with a special sponge called a "wonder sponge" and water.

Damage

Damage cannot be touched up with a hand torch. It is important to replace the planks to maintain the same quality. Please contact us.