

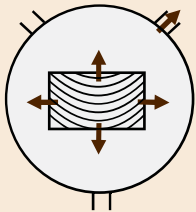
PALMAKO PRESSURE TREATMENT

TREATMENT AS ADDITIONAL PROTECTION FOR WOODEN PRODUCTS

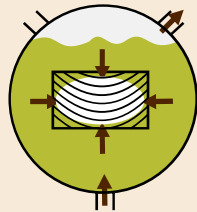
Timber is vulnerable to attack from insects, damp and fungi and needs protection from all of these to extend its service life. Unprocessed wood becomes greyish after having been left untouched for a while and can turn blue and become mouldy. In order to extend the service life of timber we pressure treat our products with wood preservatives.

PROCESS

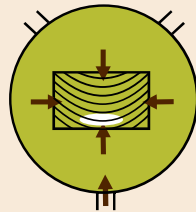
The preservative penetrates deep into the wood with the help of vacuum and pressure. In this case a vacuum is initially generated in the cell cavities thereby evacuating the air inside them. The cavities are then filled with preservative solution which is forced into the wood under high pressure. For vacuum pressure, different processes are used depending on the type of wood, environment and end purpose, but the majority of Palmako timber is treated according to European Standard EN351-1.



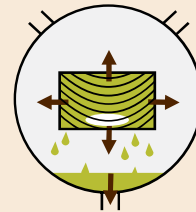
Wood is put into the tank & pre-vacuum begins. Air & moisture is pulled out from wood cells.



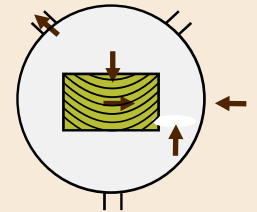
The tank is filled up with impregnation liquid.



With hydraulic pressure, liquid is pressed into wood.



The tank is emptied.



Final vacuum pulls out unnecessary impregnation liquid.

TREATMENT CHEMICALS **impralit®**



Green or brown impregnated products have been treated with impralit®-KDS wood preservative from Rütgers Organics GmbH. It is a water-borne, chromium-free wood preservative for the prevention of attack by insects, soft rot and fungal decay. It also offers temporary protection against blue stain and mould.

Embalit P/Embacolor CG by Hoetmer b.v. is a grey coloured wood preservative system based on the active compound propiconazole. Wood treated with this is free of heavy metals. It protects the wood from decay and preserves the wood for many years. The grey colour protects the wood for 1,5 till 2 years from its natural discolouring (turning grey through ageing). Advantage of the grey colour is that once the wood starts to discolour through ageing this is hardly seen because the wood stays grey.



GNVPI Green impralit®-KDS



BNVPI Brown impralit®-KDS



GYVPI Grey Embalit P/Embacolor CG

PRODUCTS IN TREATMENT

Pressure treated machine round posts are widespread and appreciated by the end users. In addition to the posts Palmako is able to offer pressure treatment to several timber in the garden products – fence panels, wooden garden furniture, gardening products including flower boxes and even some buildings, pergolas and element sheds.



Bringing joy to the garden

Palmako
LEMEKS GROUP

TREATMENT VISUAL APPEARANCE

After treatment the visual appearance of timber is influenced by many factors such as UV radiation, timber texture, packing materials etc.

Treated timber often has lighter mark on the surface which are caused by **UV radiation** on the timber before treatment. Even the slightest exposure to daylight can cause visual colour difference on timber surface's. The parts of timber which are not in contact with daylight remain lighter after treatment than the parts which are exposed. The colour difference is most commonly seen **under packing tapes** and on the products which are on the **outer layers** of treated product's packs. In the case of green treated products the UV light causes minor colour differences, but on brown treated products it can be more visible. These colour variations will even out after some time when treated product are put into use. NB! Despite the colour differences the protections still remains the same!



Colour variations caused by UV light and packing tapes.



One package has been exposed to sunlight more than others.



It has been difficult for brown colour to penetrate in packed posts.

On brown treated products there can be also lighter areas on treated products which are caused by the treatment solution properties. In the brown treatment solution the brown colour is added to basic impralit®-KDS treatment solution in order to cover the timber surface with brown colour during the treatment cycle. The particles of the brown colour are bigger than copper salt particles. In the basic treatment solution which makes it more difficult for brown colour to penetrate everywhere in treated product pack. The most common visual colour differences appears under packing tape, on packing slat connection points and on places where timber surface is very tightly pressed together in treated pack. These colour variations will even out after some time when the treated product is put into use. NB! Despite the colour differences the protections still remains the same!



Colour variations of grey treatment



Visible treatment solution drying marks

In **grey treatment** solution the basic treatment chemical which gives the protection to treated timber is metal free and colourless. Due to that the grey colour does not have to hide strong basic colour like brown colour has to cover the initial green colour. The grey colour **gives a much lighter tone** to the timber surface and the timber texture remains visible underneath the colour coverage. Because of the properties of the timber texture the grey treated products can have more variable covering tone than green or brown treated products. Grey treated products can also have **more visible treatment solution drying marks** compared to green or brown colour but it will even out when treated product is put into use. NB! Despite the colour differences the protections still remains the same!



All the treated products are **susceptible to the sunlight influences**. The colours of green or brown treated products will start to change soon after the product is exposed to sunlight. Due to that the surface of treated timber will turn into bronze tone and after some years to grey tone. The rate of bleaching is dependent on the weather conditions and the intensity of sunlight. The surface of wood that is pressure treated with copper products (like impralit®-KDS) may have tracks of **treatment salts**. This is because the water evaporates from the wood and brings the salts out. Water also evaporates from wood surface but the salts will remain on the surface. This process is normal and does not reduce the effectiveness of treatment solution.



Treatment salts on timber surface.



Resin



Wood filler