

**WW90**
**3-LAYER LACQUER SYSTEM FOR EXTERIOR WOODEN WINDOWS**
**PINJA WOOD STAIN  
PINJALAC HB 30**

Waterborne system WW90 is translucent lacquer system for exterior wooden windows, doors, garden furniture etc. The total dry film thickness of this system is over 90 µm.

Pinja Wood Stain is waterborne fast drying translucent wood stain which penetrates deeply in to the wood and protects wood against moisture, sunlight and dirt. It also decreases the cracking of the wood. Pinja Wood Stain is tintable in Avatint and Akvi Tone tinting system.

Pinjalac HB 30 is fast drying flexible acrylic lacquer. Viscosity of the Pinjalac HB 30 is very high and thixotropic and it's possible to spray high wet film thickness. Pinjalac HB 30 is tintable in Avatint and Akvi Tone tinting systems.

**3-layer system for exterior wooden windows, doors etc.**

Treatment	Product	Application method	Wet film thickness
1x Impregnation	Pinja Wood Stain	Dipping, flow coating, spraying, brushing	60 - 80 µm
1x Lacquering	Pinjalac HB 30	Spraying	120 - 150 µm
1x Lacquering	Pinjalac HB 30	Spraying	120 - 150 µm

**PRODUCT PROPERTIES**

<b>Solid Content</b>	10 volume-% 36 volume-%	Pinja Wood Stain Pinjalac HB 30
<b>Gloss</b>	Semi-matt	Pinjalac HB 30
<b>Application methods</b>	Dipping, flow coating, spraying, brushing Air assisted, airless and conventional spraying	Pinja Wood stain Pinjalac HB 30
<b>Thinner</b>	Water	
<b>Cleaning of equipment</b>	Water	
<b>Colours</b>	Avatint and Akvi Tone tinting system.	

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<b>SURFACE PREPARATION</b>	The wood has to be clean and dry. The relative humidity of wood has to be under 20 %.
<b>APPLICATION CONDITIONS</b>	During application and drying the temperature of the air, paint and surface should be at least +18 °C. The relative humidity should not exceed 70 %. Best drying conditions are in 20 - 40 °C temperature, relative humidity 50 - 70 % and also good ventilation is needed.
<b>APPLICATION</b>	<p>Stir the Pinja Wood Stain well before application and thin with water if necessary. The proper application viscosity is 11 - 13 s (DIN4). Pour the Pinja Wood Stain to the vessel and let it normalize 10-20 minutes before painting. Dip or spray Pinja Wood Stain and check that the Stain covers all the surfaces and that the colour is even. Let the stain dry. In normal conditions when temperature is 20 - 30 °C the drying time is minimum 2 - 4 hours.</p> <p>Stir the Pinjalac HB 30 well before application. The right nozzle size is 0.011 or 0.013" and angle 20 or 40 and the spraying distance from object about 20 - 25 cm.</p> <p>Spray the Pinjalac HB 30 both times about 125 - 150 µm wet film thickness and let the lacquer dry minimum 2-4 hours between layers and sand the surfaces well before second application. After second layer let the lacquer dry minimum 2 - 4 hours.</p> <p>Let the pieces dry in vertical position so that the lacquered surfaces touch as less as possible to each other. Between the pieces can be placed for instance cardboard or foam plastic to prevent the damages. The temperature must be under 35 °C during the storage of the pieces.</p>
<b>WARRANTY OF QUALITY</b>	<p>Tikkurila Oyj has designed this application technology and painting system to have a maintenance interval of minimum 5 years if conditions of wooden construction materials are checked annually and possible damages fixed according to the maintenance instructions.</p> <p>These products are tested in Tikkurila R&amp;D laboratory and exterior test field. Long experience of the exterior use has shown that these products are suitable for painting of exterior wooden construction materials. Maintenance interval is a rough estimate, as it depends on the color shade, structural features, weather conditions, the geographic location and orientation of the objects.</p>
<b>MAINTENANCE LACQUERING</b>	<p>Check the lacquer surfaces every year and relacquer scratches or other damages according following instructions.</p> <p>Wash down the surface with MAALIPESU detergent and rinse carefully with water. Remove old loose lacquer with scraper. Sand down surface and remove the sanding dust. Stir Unica Akva, Pinjalac HB 30, Merit Jahti or Unica Super well before use. Apply evenly 1 - 2 coats of lacquer. Sand down lightly between each coat.</p>

The above information is not intended to be exhaustive or complete. The information is based on laboratory tests and practical experience, and it is given to the best of our knowledge. The quality of the product is ensured by our operational system, based on the requirements of ISO 9001 and ISO 14001. As manufacturer we cannot control the conditions under which the product is being used or the many factors that have an effect on the use and application of the product. We disclaim liability for any damages caused by using the product against our instructions or for inappropriate purposes. We reserve the right to change the given information unilaterally without notice.

The product is intended for professional use only and shall only be used by professionals who have sufficient knowledge and expertise on the proper use of the product. The information above is advisory only. To the extent permitted by applicable law, we shall not approve of any liability for the conditions under which the product is being used or for the use or application of the product.

In case you intend to use the product for any other purpose than that recommended in this document without first getting our written confirmation on the suitability for the intended use, such use takes place at your own risk.