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WISA®-DIE AND WISA®-DIE TRANSPARENT

WISA-Die is a high quality birch plywood panel developed to meet the requirements of the die cutting industry, especially for laser cutting.

Base board

Birch plywood, standard construction.

Bonding

Urea-formaldehyde resin cross-bonded interior glueing according to EN 314-2 (Plywood - Bonding) class 1 interior.

Surface WISA-Die

The face quality of the WISA-Die is defined according to its sanded birch face veneer grades S and BB which comply with the Standard EN 635 (Plywood - Classification by surface appearance).

Surface WISA-Die Transparent

Face veneer qualities S and BB.

Coating: Clear or translucent green UV lacquer on both sides. Also customized colours are available according to separate agreement.

Edge protection: Sealed edges with translucent acrylate lacquer.

Surface properties: The surface of WISA-Die Transparent is hard and smooth and easy to keep clean. The coated surface works as moisture barrier to keep the panel as stable as possible. Rubbers can easily be fixed with fast curing glues or stickers.

Thicknesses

Nominal thickness (mm)	Number of plies	Thickness tolerances (mm)	
		Min	Max
9	7	8.8	9.5
12	9	11.5	12.5
15	11	14.5	14.9
18	13	17.6	18.0
21	15	20.0	20.9

Thicknesses and tolerances fulfil the requirements of EN 315 (Plywood - Tolerances for dimensions) and are in part stricter. Other thicknesses on request.

Standard sizes

1220 x 1220 / 2440 mm

1250 x 2500 / 3000 mm

1500 x 1100 / 2150 / 2500 / 3000 mm

1525 x 1525 / 3050 mm

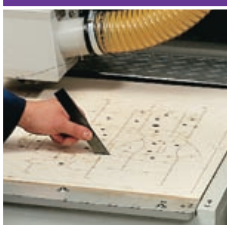
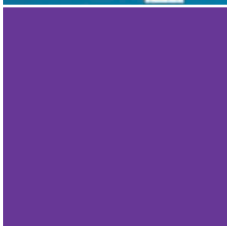
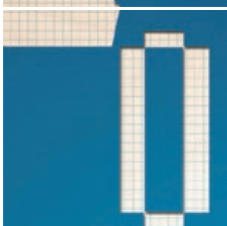
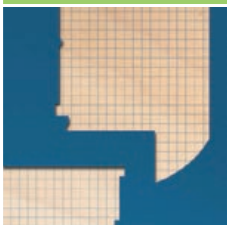
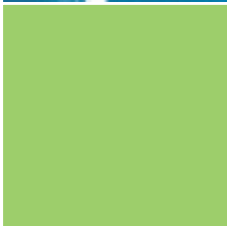
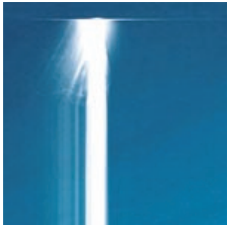
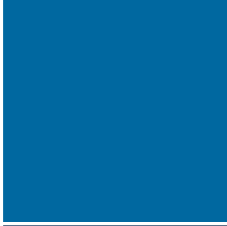
Size tolerances: < 1000 mm ±1 mm

1000-2000 mm ±2 mm

> 2000 mm ±3 mm

Squareness tolerance: ±1 mm / 1000 mm





Product safety

Formaldehyde content and release

EN 120:1992 Class 1

EN 717-2:1994 Class A

Formaldehyde content in plywood is only a little bit higher than in natural birch wood. The coating of WISA-Die Transparent doesn't have any formaldehyde in it.

Combustion gases

There are no notable differences between WISA-Die and WISA-Die Transparent in emerged combustion gases when panels are cut by laser.

Effect of humidity and moisture

As living material, wood is subject to moisture movement according to surrounding conditions, which may affect the flatness of panels.

Before use, it is therefore important to bring the panels to a moisture content near to the equilibrium with their permanent environment.

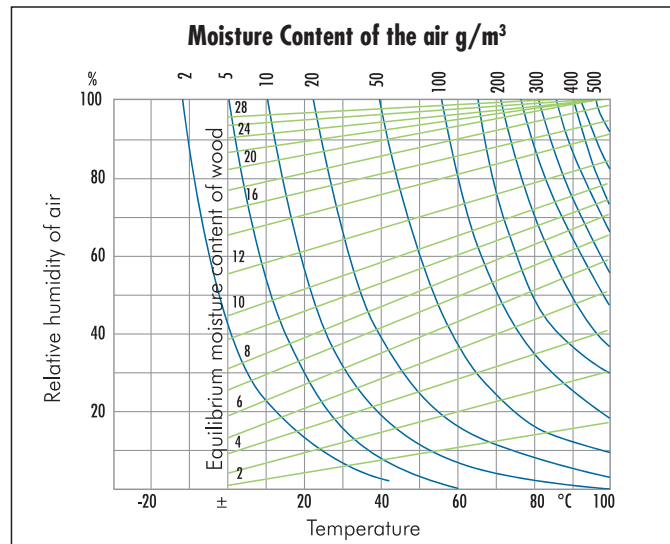
The recommended stocking conditions: 20°C and RH of air abt 60%.

The graph below shows the equilibrium moisture content of wood in relation to the relative humidity of air and the temperature.

The equilibrium moisture content of plywood is lower than that of wood.

The whole production process of WISA-Die and WISA-Die Transparent is designed to make the insidepanel moisture content as uniform and symmetrical as possible. Also the symmetrical coating of WISA-Die Transparent and the sealed edges contribute to prevent undesired changes in moisture.

WISA-Die (interior bonding) is not recommended for applications where moisture resistance is needed.



Source: Puutiede, Matti Kärkkäinen, 1985, ISBN 951-99628-2-4.

UPM policy is one of continuous development. We reserve the right to amend specifications without notice or obligation.



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