

SanLaser

BASE PANEL

This product line is developed specifically for *die-making* application.

Core plywood is a full-birch panel, composed (unless specific demand) with a cross-grain veneer layup. Also interior veneers are sorted with specific criteria to make a uniform cut during laser engraving. The surface veneers might contain wood plugs or minimal putty reparations on the surface.

OVERLAY

Base panels can be offered as RAW, VARNISHED or FILMED

- **San Laser RAW**

The panel faces are uncoated

- **SanLaser FILM**

The panel is overlaid with a durable melamine film pressed into the surface during hot-pressing. The film, if not differently required has a basic weight of 110 g/m².

The surface is normally transparent but it can be colored if necessary

The surface is easy to clean with air or water.

The top film offers a hard and durable protection against abrasion. The number of Taber revolutions for the basic 120 g/m² film is n°270 according to EN 438-2 DIN53799. This value can be increased on customer demand using specific overlays.

- **SanLaser VARNISH**

The panel is coated with transparent or colored UV resistant varnish. The surface is easy to clean.

	RAW	VARNISH	FILM
Size limitation	no	1550 mm	no
Visual looking	1	3	2
Flatness	1	3	2
Dimensions stability	1	2	3
Scratch resistance	1	2	3
Moisture protection	1	2	3
Color	no	all	some
Rubber glueing	1	3	3

This table summarizes the advantages and the disadvantages of each kind of Finishing supplied. We assigned a vote from 1 to 3 (1 worst, 3 best) in order to highlight the differences.

GOOD TO KNOW



ECO FRIENDLY



EASY RUBBER GLUING



EASY CLEANING



SCRATCH RESISTANT



MADE FOR LASER CUTTING



LOW VOC EMISSION



COST SAVING



MOISTURE PROTECTION

SIZES

San Giorgio is able to offer every size on customer demand

1220x2440; 1525x3050mm and 1525x2230 mm, 1525x1120 mm, 1525x1830mm etc.

Bigger sizes are possible such as 1800x2200mm. San Giorgio target is to minimize the material waste and to cut unnecessary costs to its customers

THICKNESSES TOLERANCE

The thickness tolerances of San Giorgio is more stringent than the European requirements (standard EN 315) . For specific customer needs San Giorgio tolerances can customized upon request.

NOMINAL THICKNESS	NUMBER OF VENEER PLYS	THICKNESS TOLERANCE		TARGET
		Min. [mm]	Max. [mm]	
[mm]	[pcs]			[mm]
6,5	5	6,4	6,7	6,5
9	7	8,7	9,0	8,9
12	9	11,6	12,0	11,8
15	11	14,6	15,0	14,8
18	13	17,6	18,0	17,8
20,5	15	20,1	20,5	20,3
21	15	20,6	21,0	20,8
22	16	21,6	22,0	21,8

*. THICKNESS MIGHT SLIGHTLY CHANGE DEPENDING ON TRANSPORT AND STORAGE CONDITION. THE REPORTED VALUES ARE MEASURED IN SAN GIORGIO

SIZE TOLERANCES

Measured in accordance with standard EN 324, the plywood size and squareness tolerances meet EN 315 requirements. For specific customer needs San Giorgio tolerances can reduced upon request.

LENGTH / WIDTH	TOLERANCE
< 1000 mm	± 1 mm
1000 - 2000 mm	± 2 mm
> 2000 mm	± 3 mm
Squareness	± 0.1% or ± 1mm/m
Edge straightness	± 0.1% or ± 1mm/m

BONDING CLASSES

San Giorgio has developed a Modern Gluing System focusing on die-making needs, in order to guarantee good stability and lowest emission for the workers (safety during the laser-cut. SanLaser use an Interior glue non suitable for external applications). The gluing meets the requirements of the following international standards: EN 314-2/Class 1

SPECIFIC WEIGHT / DENSITY

San Giorgio peels a Selected Quality Of Birch Trees and follows special processes in production

Compared to the other birch plywood producers (710 kg/m³), the Density of San Giorgio plywood (750kg/m³). SanLaser is around 7% more dense.

This gives a great hardness and durability to the plywood

MOISTURE CONTENT

Moisture content is influenced by storing, transport, environmental humidity, weather, seasonal changes etc.

San Laser panels are normally in the moisture range between 9% to 13 %. (11 +- 2%).

Specific moisture contents can be customized on customer request.

PANEL PHYSICAL PROPERTIES

THICKNESS [MM]	ELASTIC-MODULUS N / MM ²		BENDING STRENGTH N / MM ²	
	LONG GRAIN	CROSS GRAIN	LONG GRAIN	CROSS GRAIN
9	8365	6371	73,4	62,3
12	7840	5942	67,3	59,4
15	7482	5739	66,6	58,4
18	7401	5688	64,9	58,2
21	7379	5649	64,5	55,6

MEAN MODULUS OF ELASTICITY AND CHARACTERISTIC BENDING STRENGTH ARE DETERMINED ACCORDING TO EN310.
SOUNDPROOFING IS DETERMINED ACCORDING TO EN 13986.

ENVIRONMENTAL RESPONSABILITY

Wood manufactured from San Giorgio is an ecological and renewable material produced under sustainable principles. The guarantee of sustainability comes from the fact that globally birch forests grow more than they are harvested. FSC certification on all our products is available to proof our attention to sustainability.

FORMALDEHYDE EMISSIONS

Determined according to EN 717-2 and 717-1 the formaldehyde emitted by San Giorgio panels falls far below the Class E1 and E05

The formaldehyde emission of San Giorgio's plywood with INT glue is in average 0,035 ppm and with EXT glue is in average 0,02 ppm therefore all San Giorgio Plywood meets the stricter parameters world wide as ULEF - TSCA title VI - CARB P2 Compliant