

WOOD-SKIN | TECHNOLOGY DATA SHEET

DESIGN AND APPLICATIONS

Design ideas once thought to be too extravagant or expensive become both possible and affordable. Thanks to the patented technology, WOOD-SKIN can program traditional materials to fold according to even the most adventurous design needs, becoming 3D surfaces for the architectural environment.

APPLICATION	wall, ceiling, façade, counters, columns and more
MATERIALS	wide range of wood (such as plywood, wood veneer, semi-finished products), laminates, aluminum, felt, cork, HPL and others upon request
FINISHES	varnish, laminate, veneer
COLORS	wide range of hues depending on materials and finishes
ENVIRONMENT	indoor / outdoor

PROCESS

WOOD-SKIN® is a patented digital fabrication process able to translate any design into a one-of-a-kind, self-structured, three-dimensional surface.

The combination of proprietary software, composite materials, and CNC machines helps architects and designers to bridge the gap between digital representation and the building environment.

Through software, complex surfaces are easily managed and tessellated. The surface is unfolded and highly optimized to be produced and shipped flat on-site, where it is folded back into the designed 3D shape.



VALUES

- durable and resistant
- sustainable
- easy to assemble
- acoustic properties
- suitable for high traffic areas
- fire rated materials
- customizable
- flat shipping
- lightweight
- structure free

HANDLING AND MAINTENANCE

- Handle WOOD-SKIN surfaces with care during unpacking and installation
- Products waiting to be installed should be stored in a clean and climate-controlled environment free from moisture
- Depending on materials and finishes, use a non-abrasive moist cloth for cleaning. We recommend using microfiber cloths. Use neutral detergents. Avoid using detergents containing abrasive substances.

INSTALLATION

WOOD-SKIN surfaces are installed as a dry system mainly composed of WOOD-SKIN joining flaps, nuts/bolts, and airplane cables. This does not require a backing structure to create the final shape and allows the reversibility of the installation.

Depending on the complexity of the project, WOOD-SKIN can be installed by:

- a certified team;
- the client under the supervision of WOOD-SKIN installation expert;
- the client with a WOOD-SKIN installation manual.

FIRE REACTION OF WOOD-SKIN COMPOSITE

WOOD-SKIN composites are highly customized and engineered to meet any project's fire requirements. It is therefore important to share all the available information in order to efficiently manage results. Contact the office for more information.

Available certifications have been issued on specific WOOD-SKIN composite.

- ASTM E 84 - USA

TESTED AT INTERTEK



- UNI EN 13501 - EU

TESTED AT CSI



CERTIFICATIONS OF MATERIALS

	OKUMÉ	MDF	BIRCH	BAMBOO	CORK	ENGINEERED VENEER	LAMINATES	ALUMINUM	SYNTHETIC FELT
FIRE REACTION	✓	✓*					✓*	✓	✓*
ENVIRONMENTAL CERTIFICATION materials from certified forest that meet the environmental and social standards	✓	✓	✓	✓	✓	✓	✓*		
CHEMICAL EMISSIONS CERTIFICATIONS	✓	✓	✓	✓	✓		✓*		✓
QUALITY CONTROL CERTIFICATIONS quality control of the production process and environmental management	✓	✓	✓		✓		✓*	✓	✓

*depending on the product and/or suppliers

GLUE AND TEXTILE	According to WOOD-SKIN® patented technology; Isocyanate free glue;	Tensile strength according to DIN EN ISO 1421/V1; Tear strength according to DIN 53363
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- The certifications reported in the table are indicative and refer to the main materials and finishes used for WOOD-SKIN composite.
- Wood products not carrying suppliers fire reaction certification can be treated by WOOD-SKIN with fire-rated clear paint to meet high fire reaction standards.

MECHANICAL PROPERTIES OF WOOD-SKIN COMPOSITE

WOOD-SKIN® suspension system is tested by Inter-Dept Research Cluster on Innovative Textiles of Politecnico di Milano.

Tear strenght: 3000 N



Stress test: repeated pivotal movement of the hinges (65 000 cycles)

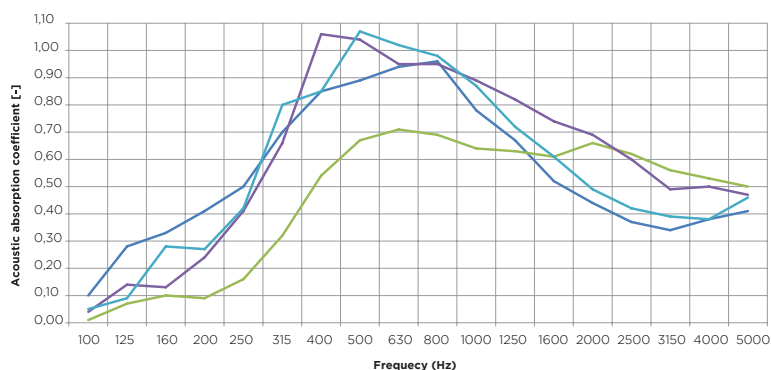


ACOUSTIC PERFORMANCES OF WOOD-SKIN COMPOSITE

The WOOD-SKIN system has great acoustic characteristics depending on the position and the treatment of the surface;

- non-perforated surface: WOOD-SKIN behaves as an excellent diffuser/reflector for the mid-high frequencies;
- airgap 30-50cm and perforation rate 5-15%: WOOD-SKIN has a low-mid frequency absorption;
- airgap 5-10cm and perforation rate 20-50%: WOOD-SKIN has a medium to high frequency absorption.

typology	Sheet + polyester no air in cavity	Sheet + cork no air in cavity	Sheet + SW	Sheet + Rock wool
α_w	0,5 (M)	0,5 (M)	0,65 (M)	0,55 (M)



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