

Translucent Wood Innovation

ELEVEN Technology™

Translucent Wood

Innovation for Furniture and Interior Manufacturers

ELEVEN is a patented translucent wood technology that combines the authentic appearance of natural wood veneer with an advanced light-transmitting material structure. The result is a structural panel system that looks and feels like real wood while allowing light to pass through the surface, creating a unique illuminated wood experience.

The technology is protected by a registered United States patent and has been successfully presented at several international design exhibitions.

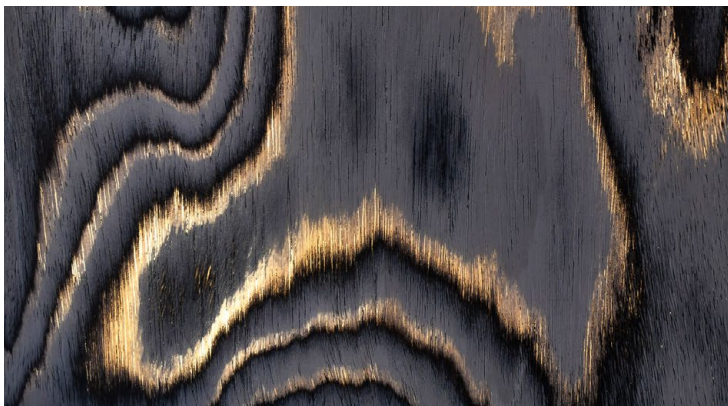
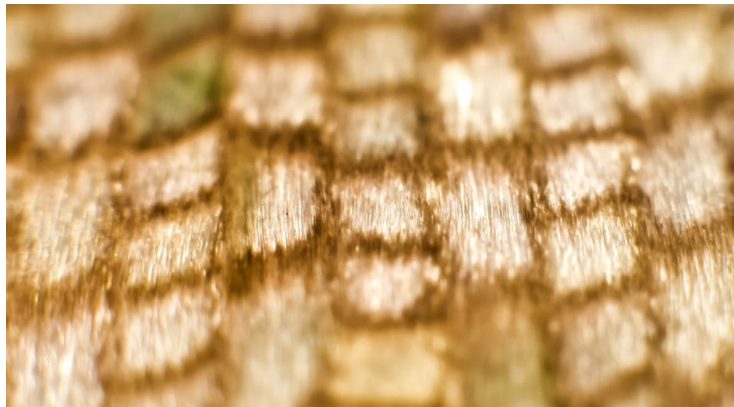
ELEVEN opens a new dimension for furniture manufacturers, interior designers, architects, and product developers by enabling the integration of light directly into genuine wood surfaces.

Main Application Areas

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ELEVEN panels are ideally suited for premium interior and furniture applications, including:

- Luxury residential interiors
- High-end furniture manufacturing
- Offices and executive meeting rooms
- Hospitality and commercial interiors
- Marine and private aviation interiors
- Architectural wall cladding and decorative elements
- Custom design products and lighting solutions



Technology Purpose and Concept

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The primary objective of ELEVEN technology was to develop a translucent veneered structural panel that preserves the natural beauty, texture, and tactile qualities of real wood while enabling surface illumination.

The system consists of a homogeneous, optically clear core material bonded with genuine wood veneer. This structure provides the visual and tactile experience of solid wood while maintaining light transmission capability — a combination previously unavailable with conventional woodworking materials.

ELEVEN panels match the surface appearance of traditional veneered boards and plywood, allowing seamless integration with existing interior components.

Development Principles

The technology was developed based on the following priorities:

- Robust and durable structure with long service life
- Natural light transmission of wood creating warm ambient illumination
- Exclusive aesthetic experience enhancing the character of wood
- Easy machining using standard woodworking tools
- Versatile integration into furniture and interior solutions



Panel Specifications

Specification	Details
Thickness range	3 mm – 20 mm
Core structure	Optically clear structural material
Surface	Natural wood veneer
Machining	Standard woodworking tools
Compatibility	CNC and laser machining
Veneer Compatibility	Sliced veneers
	Double-sliced veneers
Storage recommendations	Temperature: +5 °C to +30 °C (41 °F – 86 °F)
	No special maintenance required when stored properly
Surface Finishing * Before production finishing, sample testing with illumination is strongly recommended to verify the desired aesthetic result.	Water-based coatings
	Solvent-based systems
	Oils and waxes
	Stains and dyes
	Two-component lacquers
	Polyester coatings

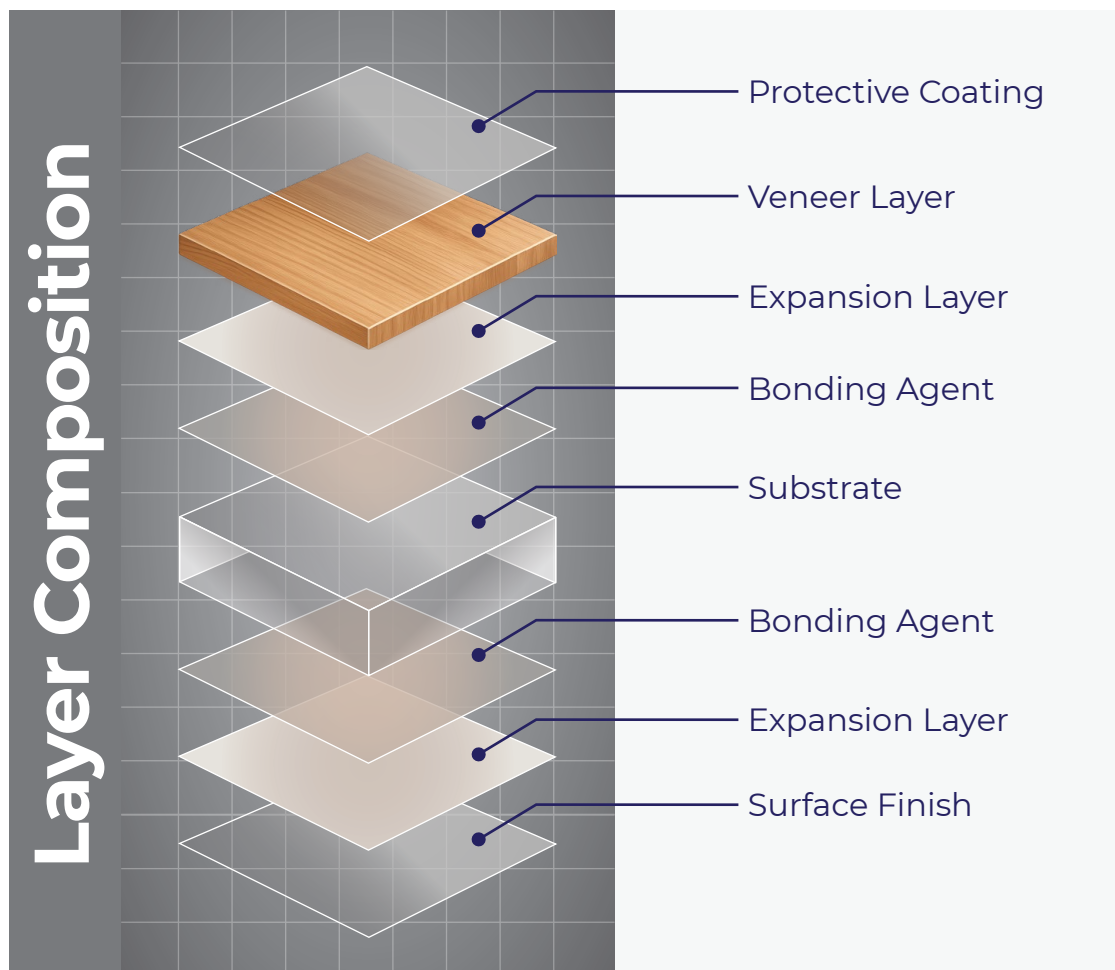
Standard Finishing Process

The finishing workflow follows conventional woodworking procedures:

1. Sanding
2. Priming
3. Drying
4. Intermediate sanding
5. Topcoat application
6. Final curing

Functions of finishing materials:

- Surface protection
- Enhancement of visual appearance
- Control of color and light diffusion



Manufacturing Advantages

ELEVEN technology integrates easily into existing manufacturing workflows:

- Compatible with CNC and laser machining
- Processable with standard cutting and drilling tools
- Applicable using conventional veneering technology
- No specialized machinery investment required
- Suitable for series production

Design Value

ELEVEN technology transforms wood from a passive surface into an active architectural material.

- Furniture with integrated lighting
- Backlit wall systems
- Illuminated doors and panels
- Signature design elements
- Unique market differentiation for manufacturers



About the Technology

ELEVEN is the U.S. market brand name of a European-developed technology — an innovative translucent wood system created for next-generation interior and furniture solutions.

www.eleventechic.com

