



International Committee of the
Decorative Laminates Industry

European HPL: Engineered for Excellence

Clever Material · Sustainable Solutions ·
Proven Quality

White paper by

ICDLI

july 2026

About this paper

High Pressure Laminate (HPL) made in Europe stands for quality, innovation, and sustainability. As a high-performance material for a wide range of applications – from architecture and furniture design to transport and public facilities – European HPL combines technical excellence with aesthetic versatility. Its long service life, superior resistance to wear, weather, and chemicals, and use of renewable raw materials make it an ideal choice for sustainable design solutions.

This White Paper highlights the benefits of European-made HPL compared to imports from outside Europe. It demonstrates how European manufacturers ensure compliance with strict environmental and safety standards, maintain consistent product quality, and drive innovation through continuous improvement. The result: a material that not only meets the highest functional requirements but also contributes to a future-oriented European economy.

What is HPL?

HPL, short for High Pressure Laminate, is a functional and highly durable surface material with a wide variety of decors and unusual extraordinary surface textures. For indoor and outdoor use, horizontal and vertical applications: HPL is suitable for the sustainable design of surfaces and spaces wherever high design demands are required, coupled with enormous durability. HPL is a thermosetting composite material based on resins and papers and has a unique, extremely robust and durable surface. This versatility makes HPL an attractive choice for many industries and offers virtually limitless design freedom to architects and interior applications.

The material, its classification, performance requirements and test methods are internationally defined in ISO 4586 (High-pressure decorative laminates – Sheets based on thermosetting resins). In Europe, these requirements are implemented and supplemented by the EN 438 series, which specifies the characteristics and quality requirements for decorative high-pressure laminates used in furniture, interior design, façades and many other applications.

In addition to HPL elements with a thickness of < 2 mm, there are HPL compact panels with thicknesses of ≥ 2 mm. This dense material is particularly suitable for surfaces subject to high wear levels.



About the ICDLI

The ICDLI International Committee of the Decorative Laminates Industry is the association of Europe-an HPL manufacturers and their suppliers. It is the European voice of the HPL industry and an important interface to the media, politics, society and science.

Why HPL?



Mechanical resistance

- Scratch resistance: Resistant to mechanical impacts.
- Shock resistance: Very robust against impacts and shocks.
- Abrasion resistance: Durable even with intensive use.



Weather resistance

- Moisture resistance: HPL is resistant to rain, moisture, and wet conditions; permanent moisture accumulation must be avoided.
- UV resistance: The EDS/EDF plate types are designed for heavy outdoor use and feature additional weather and UV protection.
- Temperature resistance: Even in severe frost, HPL remains stable and retains its shape.



Hygienic properties

- Homogeneous and non-porous surface: Dirt and bacteria-repellent.
- Food-safe and hygienically safe: Suitable for kitchens and laboratories.



Thermal and Fire Resistance

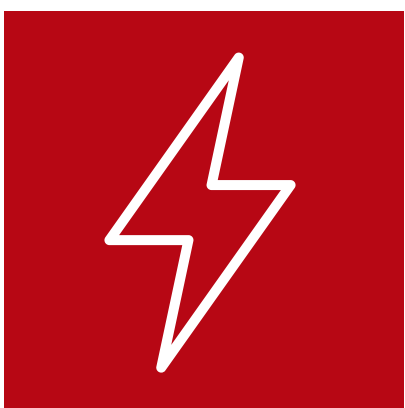
- Heat-resistant: Insensitive to short-term heat exposure.
- Flame-resistant: Many HPL products meet high fire safety requirements.
- Fire behaviour: Favourable due to low smoke development and non-drip, non-melting burning and has the ability to slow the spread of flames and to help save lives.

Why HPL?



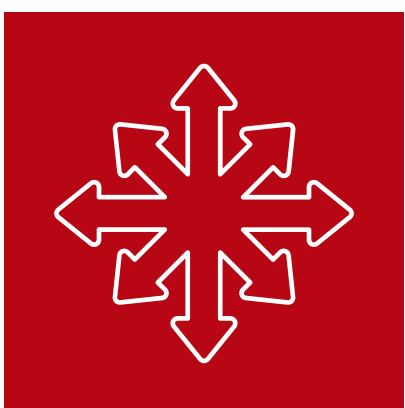
Chemical Resistance

- Chemicals: Resistant to most household chemicals.
- Several qualities available from household applications up to chemical laboratories tailored.



Electrostatic Properties

- Antistatic: HPL minimizes the generation of electrostatic charges due to contact changes or friction with other materials and does not require grounding.



Aesthetics and Versatility

- Diverse Designs: Available in numerous colours, patterns, textures, and custom designs (images, lettering).
- Good Formability/Postforming for outstanding designs: Special versions are suitable for curved applications. Can be formed into concave and convex curves with relatively tight radii – offers seamless edge transitions, while rounded edges meet higher safety requirements.
- Multifunctional surface: writable, magnetic, and projection-ready.

Environmental benefits

Durability

HPL is extremely resistant to abrasion, scratches, and weathering, giving it excellent aging performance and a long service life. Depending on the application and usage conditions, HPL will last at least 20 to 50 years. Longer use reduces the need for frequent replacement and conserves resources.

Renewable Raw Materials

HPL is largely made from renewable raw materials. HPL producers rely on wood fibres from sustainably managed forests.

Material Efficiency

Compared to solid wood or natural stone, less raw material is required for the same functionality. The use of chemical cleaning agents is not necessary when cleaning HPL.

Recyclability

Refurbishment and reuse of HPL with an additional coating is generally possible. HPL products are largely thermally recycled, thus generating energy in their second life.

Health

HPL products are low-emission materials (e.g., low-formaldehyde). It helps to gain points in the sustainable building certification, like BREEAM (Building Research Establishment Environmental Assessment Methodology), LEED (Leadership in Energy and Environmental Design), DGNB (German Sustainable Building Council).

Environmental Properties

The impact of European HPL production on the greenhouse effect is low. And its excellent environmental properties, are regularly verified and adapted according to the latest specifications and environmental standard EN 15 804+A2. The Environmental Product Declaration (EPD) for HPL is Type III.

Wide range of applications



Construction Applications

- Facade cladding
- Doors & partition walls
- Balcony cladding & railing panels



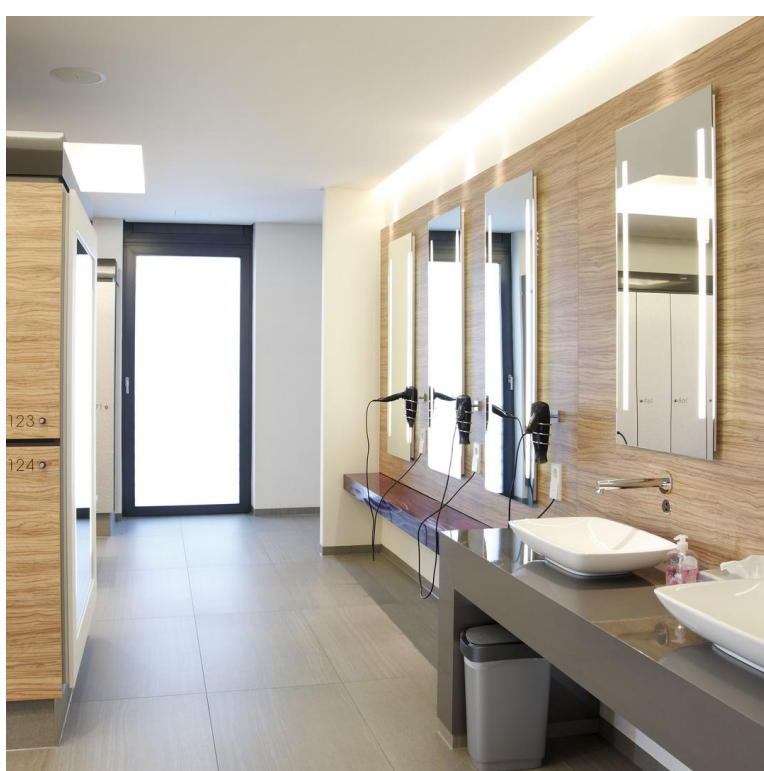
Furniture & Interior Design

- Furniture surfaces
- Tables & worktops
- Restrooms



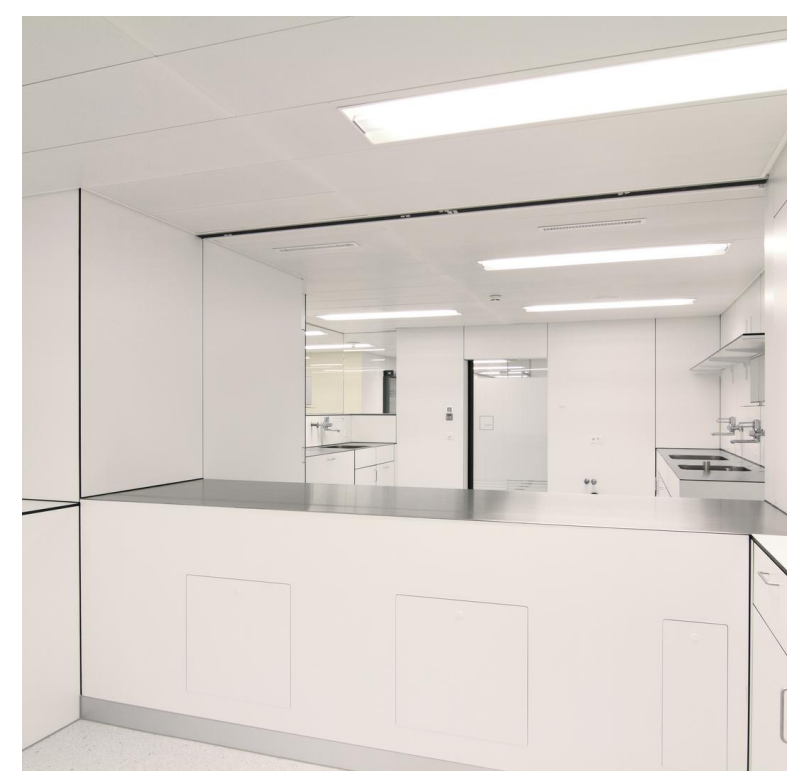
Commercial & Public Facilities

- Hospitals & Laboratories
- Hotels & Restaurants
- Schools & Kindergartens



Transportation & Automotive Engineering

- Shipbuilding & Aircraft
- Train & Bus Interior
- Motorhome Interiors



Sports & Leisure Areas

- Camping & Outdoor Furniture
- Gyms
- Amusement Parks & Stadiums



Special Applications

- Cleanrooms
- Design & architectural projects
- Industrial applications

Summary

European-made combines advanced technology, strict regulatory compliance, and a strong commitment to sustainability—qualities that clearly distinguish it from many non-European products. Unlike many imported products, it is produced under transparent, audited standards ensuring long-lasting performance and low emissions.

Manufacturers in Europe continuously invest in innovation, ensuring that HPL meets the highest requirements for durability, safety, and design versatility.

Bottom line: If you want design, performance, and sustainability, HPL is your material. Go create something amazing!



Editorial

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Picture credits

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