





PATENTS & TECHNOLOGIES

Liquid Laminate Technology (LLT) "Light"

Licensed by I4F, LLT is a chemical process, developed and patented by Classen, for the cost-effective production of high quality melamine surfaces on laminate floor boards. To meet the needs of customers and the increasing amounts of Embossed-in-Register textures, Classen created a 'Light' version of LLT.

Cost Savings

Less Waste

Typically, laminate producers offer hundreds of different decors to meet the needs of their customers. This, however, often results in significant amounts of waste as impregnated paper only keeps for short periods of time. LLT "Light" avoids unnecessary waste by using dry, easily storable decor paper rolls that can be kept without any time limits. Exact quantities can be easily extracted from the dry paper rolls as needed, leaving the remaining amount rolled up, stored and intact for future use.

Lighter decor paper = reduction in resin and chemicals

With LLT "Light", decor paper does not have to be fully soaked with resin and so the paper can be thinner and lighter. And significantly less chemicals are needed for the LLT in-line impregnation compared to the conventional process.

KEY BENEFITS

Cost Savings

- → Less raw material waste (melamine resin and paper)
- -> Sustainable production process



Unrivalled optics and haptics

With LLT "Light", dry decor paper is fixed on to the HDF board before in-line liquid treatment, so problematic paper growth – typically unavoidable using impregnated décor paper during pressing in a conventional process - is eliminated. This enables an unmatched level of accuracy for superior optic and haptic alignments.

This is a must for quality-driven producers of modern, state-of-the-art laminate products and synchronized decors or Embossed-in-Register (EiR) textures.

KEY BENEFITS

No unwanted paper growth:

- Superior optic and haptic alignment
- → Perfect for Embossed-in-Register texture



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Partnering with the Best

I4F is a group of companies providing patents and technologies to the flooring industry and we are focused on the future!

By partnering with the world's leading producers and innovators in flooring technologies, we are powering new development by combining innovation and patented technology to deliver future-driven solutions for the benefit of our licensees.

I4F has a global strategic partnership agreement with the Classen Group - one of the world's leading producers of laminated flooring with proven expertise in production technology and innovation.

I4F has exclusive sublicensing rights for one of Classen's IP portfolios, comprising over five hundred patents, covering key flooring materials, specific locking patents as well as important inventions for digital printing and Liquid Laminate Technology (LLT).



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