

# **mitech news**

Hello and welcome to the February 2024 edition of our News Letter



In this edition:

Roller press lamination line

**This notice is intended for lamination companies**

**In collaboration with Good Forever Decor**

## **Lamination of engineered wood panels with roller presses**

I was asked if melamine paper (films) can be glued directly to particleboard, MDF or plywood. The answer is “yes”, but with special films and processing! And with advantages and disadvantages

For those who have roller presses with glue application systems, this is not news! And most wood panels companies, of course, already have the well-established short cycle platen presses:

The following is a short summary of the processes:

In the case of the commonly used “short cycle” (LPL or MFC) melamine pressing process. Hot press caul plates soften the thermo-plastic melamine resin, form the surface texture, fuse the sheet form individual papers onto MDF, particleboard, plywood and OSB, then advance the resin cure to an irreversible thermoset stage.

This melamine press process eliminates the need for an extra adhesive layer between overlay and board. But the following costs can be quite high:

- Capital and installation costs
- Heat and pressure energy costs
- Caul plates for each texture

But the surface quality of LPL/MFC can be close to HPL quality.

In the case of a roller presses:

- The film or overlay is fed continuously from rolls, and is pressed onto boards between low pressure cold or heated rollers.
- The films are supplied already textured
- But an adhesive is required between film and board.
- The machine purchase and installation costs are relatively low.
- There is no need for a thermal oil boiler to heat a press.
- Low machinery weight means low cost foundations
- There is minimal need for fume extraction.
- With modern thermosetting PVAC adhesives the quality of surfaces pressed with Pre-Impregnated Paper (PIP) approaches that of LPM od MFC
- The process cost of texturing films is included in the relatively high cost of the films
- One sided panel lamination is quite normal, resulting in flat panels.  
So ideal for thin panels

Types of overlay;

- PVC (vinyl)  
Flexible and heat softening, so commonly used for 3D pressing onto moulded MDF panels
- Pre-impregnated paper (PIP)  
Décor paper, impregnated with melamine paper as for normal melamine thermos-fused pressing.



For a link to a video of a roller press please refer to:

[www.mitechps.com/News](http://www.mitechps.com/News)

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- **Video of Press Lamination Line**

**Thank you** for reading and for your interest and to those who take time to comment.

We are all learning, so we invite comment on any topic or suggestions for topics. If we don't know, we do know others who do know

## Back issues

News letters are available at > [www.mitechps.com/News](http://www.mitechps.com/News)

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### Panel Lamination

- Paper impregnation lines
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- Protective Foil application

### Additives

- Release Agents
- Wetting Agents
- Hardeners
- Dyes and Pigments

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## An Experienced Wood panel machinery and materials supplier

Our years of experience in the market, dealing with various clients, each with unique requirements have driven us to increase knowledge and skill.

We always endeavour to meet your expectations.

Contact us any time for any query related to our products. We are happy to assist you.