



mitech news

In this edition:

- Panel colouring
- Product value
- New website

Greetings to all

Welcome to the June news edition.

This month we present one service for wood panels and for panel lamination process.

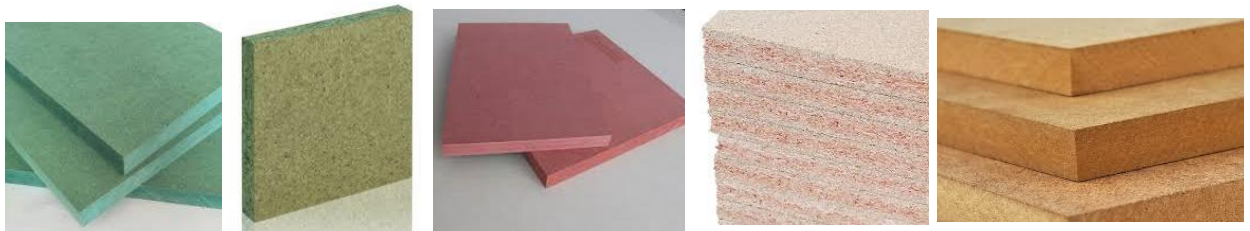
WOOD PANELS COLOURING.



Mitech proudly represents Jet-Mate Technology for wood panels and lamination colouring materials. Jet-Mate draws on experience with colour chemicals for textiles and non-Textiles as used for Timber, Paper, Inks, Leather, Aluminium, Waterborne Wood Coatings, Plastics and other industrial products

The following colours are commonly used in engineered wood panels:

- Green for MR board
- Red for Fire Retardant board.
- Brown is sometimes used for structural board.



Colours for laminating films:

- Black for compact laminate kraft layers
- Black and brown for Shuttering board Kraft/PF films



But of course other colours can be used according to product type and aesthetics.

TYPES OF COLOURING AGENTS

Liquid Dye

- Stable, acid-based liquids
- Colours may fade when subjected to high temperature or direct sunlight
- Lowest cost colours
- Acid dyes, so a low pH can mean a limited pot life when mixed in UF or MF resin and stored
- May also speed resin curing which is often seen as an advantage. Otherwise, pre-cure is avoided by reduced catalyst

Pigment

- Non-soluble powders dispersed in water.
They may settle in storage, requiring occasional constant slow stirring.
- Pigments may result in fine filter blocking.
- Neutral to high pH
(Relatively high when compared with dyes)
May lengthen the press factor, and require higher catalyst or other resin pH adjustment



← One of the Jet-Mate's laboratories

One of the Jet-Mate's
warehouses ↓



ADVANTAGES-DISADVANTAGES DYE / PIGMENT

Costs

Dyes are the lowest cost colouring agents per Kg

Heat sensitivity.

For MDF, if using liquid dye, the outer surface of MDF panels may be light coloured after subjecting to the high temperature of steel platens or steel belts.

This outer layer of the panel is usually sanded off.

If the surface remains too light in colour after sanding it may be more beneficial to use a pigment colour.

Dye coloured panels must be cooled to less than 70°C before storing for more than a few hours.

Customers pressing the coloured panels in a melamine short cycle press should be advised to cool the panels before packing.

Light sensitivity

Storage of dye coloured panels in direct sunlight should be avoided.

Shaded, interior, and diffused light is not a problem

Use Dye or Pigment?

For green colour MR board and red colour Fire Retardant board, where colour is mainly for product identification and initial product appearance, dyes are the most common choice. The excessive heat and light conditions are avoided.

For decorative coloured HMR where absolutely uniform colour throughout an MDF panel profile is required, and where long-term colour stability is required in sunlit areas, colour pigments are recommended.

Jet-Mate dyes are supplied at maximum concentration.

Note, for liquid acid dyes, the colour intensity is quite dependent on the pH. A very low pH may generate an intense colour, but in order to avoid process problems with amino resins, low pH dyes should be avoided or used with appropriate controls when mixed with some wood panels resins

Non-apparent value (NAV)

In a news edition several years it was mentioned that several beneficial aspects were not immediately visible or apparent in machinery. The experienced technologist knows that this concept is certainly true of liquid additives.

We should all be aware of the difference between product cost and product value

This can include:

- Dilution of product
- Use of hazardous or dangerous chemicals
- Environmentally unacceptable chemical
- Effects on environment if heated
- Impractical shelf life
- Incompatibility with other components
- Reduce pot life when introduced to a mixture
- Corrosion considerations
- Objectionable odour



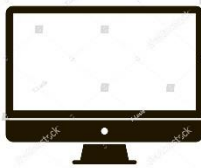
<< *The most expensive product is the one which doesn't work* >>

Conference Systems

With the current hold on travel and visits, Mitech welcomes any means of communication which approaches face-to-face discussions.

This may include the currently popular *Zoom* conferencing medium.

Feel free to schedule a conference, or request a date and time



Mitech Website

We have upgraded our web-site.

Please visit www.mitechps.com for a full overview of our services All your comments are invited

Engineered wood panels

- Conveyors
- Chippers
- Resin plants
- Chip washers
- Plywood presses
- Mat Spray Systems

Panel Lamination

- Paper impregnation lines
- Short Cycle Presses
- HPL Presses
- Veneer presses
- Press Pads
- Press Caul Plates
- Paper winders
- Paper Cutters
- Protective Foil application

Additives

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

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