

Creating extreme surfaces based on thermally fused laminate

New value adding technology gains global acceptance in the woodbased panel industry.

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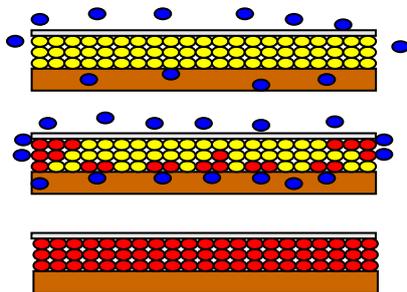
Abstract

1. Intro & principle of operation

We would like to explain the principles of the technology. Based on the fact, that almost every producer of wood based panels is operating a decorative department. These departments are value adding to the raw boards by thermally fusing impregnated papers to the raw board surface. These value added decorative panels are state-of-the-art since decades and they are dominating the furniture- and flooring markets.

The principle of operation will explain how the PUR HotCoating is creating outstanding real adhesion to this melamine face board without any pre-treatment like cleaning, sanding or chemical priming.

Spot: Crosslinking with humidity



2. New products (HiGloss & X-Mat) and their properties

The created products perfectly match the existing portfolio by using the full décor range and by adding the lowest gloss rate as well as the highest gloss range. The woodbased panel industry has a huge portfolio in terms of decors and textures. Polished press plates and synchron pressed pores are state-of-the art. Even though the products have become better and more valuable, the final panels do not match the requirements of the markets in terms of HiGloss and X-mat surfaces.

1. HiGloss

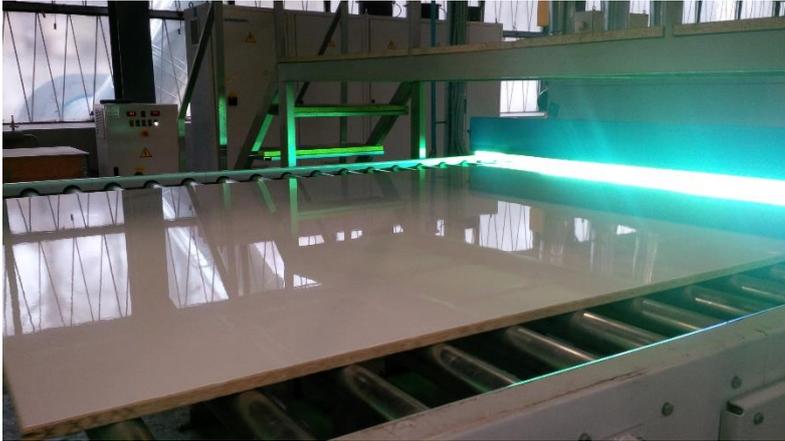
Appearance "liquid coated surface"

Outstanding haptic appearance

Perfect mechanical properties (edgebanding, drilling, cutting)

Customer experience "real HiGloss"

Highest values in UV-stability, non yellowing



2. X-Mat (<5 Gloss units)

Pendant to Higliss.

Sensitive soft and warm haptic

No reflection

No fingerfat marks

Perfect mechanical properties (edge banding, drilling, cutting)

Highest values in UV-stability, non yellowing



The PUR-HotCoating® technology is in full compliance with the following requirements:

IKEA

IOS-MAT 066 Surface Coatings & Coverings

DIN/EN 68861 1.b

Surfaces of Furnitures / Surfaces of Kitchen Cabinet Doors

AMK

Association of German Kitchenproducers (**Arbeitskreis Moderne Küche**)

EN436-6

High Pressure Laminates for exterior Wall cladding

EN13329.xxx

Laminate Flooring for interior

EN71

Wooden Toys

Exterior Garden Deckings

Markets & Demand

The availability of industrialized Hi-End products directly from the board producers, initiated a significant change of the markets. Has f.e. HiGloss always been a fashion with volatile up`s and down`s, nowadays HiGloss has become an essential part of the product ranges in furniture- and kitchen production.

The demand for decorative HiGloss panels is stable on a high volume since several years and extreme mat surfaces are showing significantly increasing volumes. This change of the markets is mainly driven by the market availability of these extreme surfaces, due to an increasing number of industrial coating installations worldwide.

Opportunities and Innovation:

The range of potential products is:

Decorative panels, HiGloss

Decorative panels, X-mat

Flooring panels with abrasive features

Exterior grade panels for outside facades

Decorative panels with embossed texture >200mikron

Panels with specific technical properties like Anti-Graffiti, Anti-Bacterial, Fire Retardant Features.

Development

The PUR HotCoating technology is under continuous development. End of 2017 the Excimer technology got integrated into the process, now successfully in operation with some major European panel producers; creating outstanding extreme mat surfaces with scratchfree- and fingerfatfree properties.

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