



# SYSTEMS FOR HARDBOARD TREATMENT

**In the furniture industry, larger surface elements which are not made of solid wood or high-quality veneer (back, side and inner surfaces, etc.) are mostly made of hardboard. Coating systems, which consist of water-based pigmented base coats for roller application and UV curing top lacquer, are used for treatment of such surfaces. In addition to the system's efficiency it is environmentally friendly due to the minimal emission of organic solvents.**

Water-based pigmented base coats are highly viscous materials made on the basis of acrylic dispersions. They have a high level of solid content and specific rheological properties enabling the coating to be perfectly transferred from the roller to the surface. They fill in the pores completely, which results in smooth surfaces suitable for treatment with UV curing coatings.

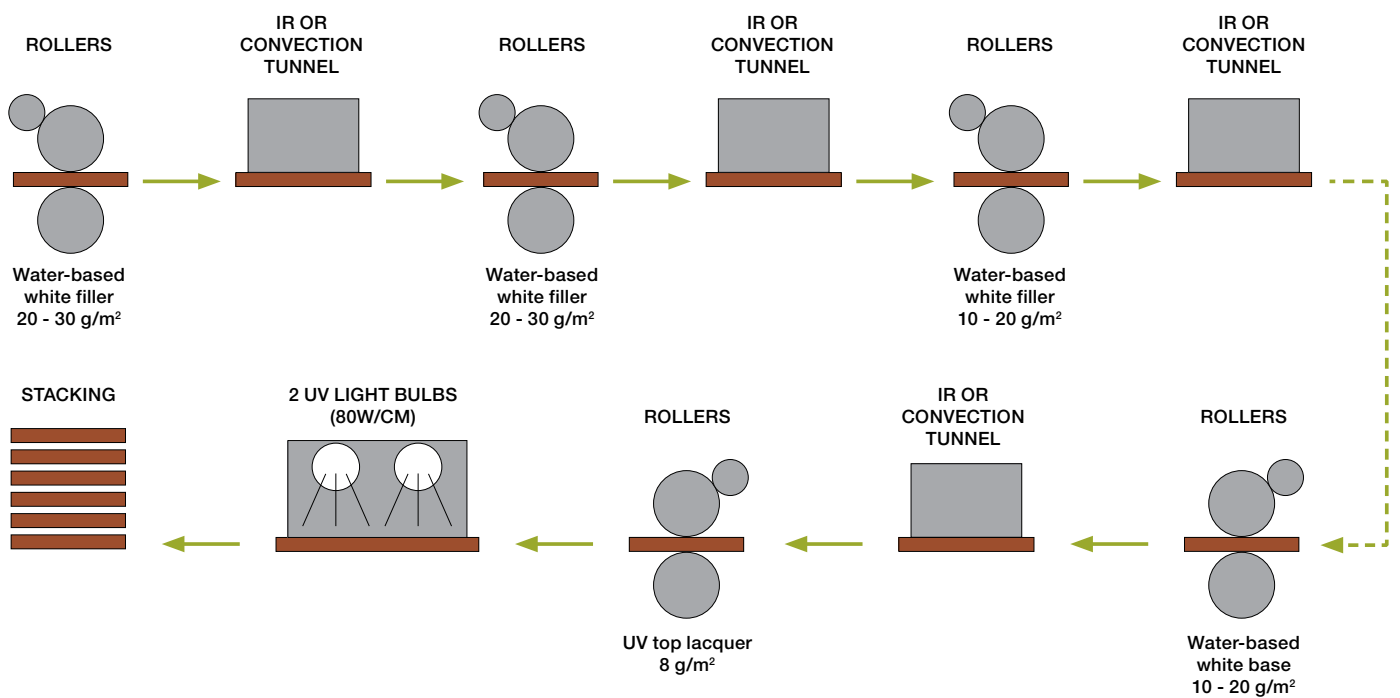
UV curing coatings are based on acrylic binders and acrylic reactive solvents. When exposed to UV light they form a solid film. Due to the high level of binding they are known for their excellent chemical resistance and physical characteristics that stand out in comparison to other materials used for wood surface protection.

## ADVANTAGES

- Cost-efficient production
- High value of solid content
- Minimal usage and waste of materials during the process
- Low VOC emissions
- Minimal use of thinners for washing
- Environmentally friendly
- Fast curing / UV curing enables quick production times



## SYSTEM FOR HARDBOARD TREATMENT



| SYSTEM  | PRODUCTS AND COATINGS   | RECOMMENDATIONS   |
|---|---|---|
| <b>HARDBOARD</b><br>in white  | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              | Recommended line speed 15 – 25m/min<br>Tunnel drying at 30 – 40°C<br>Roller hardness for enamels 30 – 40 ShA<br>Top coat lacquer is available in various gloss finishes   |
|   | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              |   |
|   | <b>WATER-BASED WHITE BASE</b><br>10 – 20 g/m <sup>2</sup> / drying                |   |
|   | <b>WATER -BASED WHITE BASE</b><br>10 – 20 g/m <sup>2</sup> / drying               |   |
|   | <b>UVEHEL TOP COAT LACQUER</b><br>8 – 12 g/m <sup>2</sup> / UV curing             |   |
| <b>HARDBOARD</b><br>colors according to customer needs                  | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              | Recommended line speed 15 – 25m/min<br>Tunnel drying at 30 – 40°C<br>Roller hardness for enamels 30 – 40 ShA<br>Water-based enamels are available in RAL color shades or according to customer's sample<br>Top coat lacquer is available in various gloss finishes  |
|   | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              |   |
|   | <b>WATER-BASED PIGMENTED BASE</b><br>10 – 20 g/m <sup>2</sup> / drying            |   |
|   | <b>WATER-BASED PIGMENTED BASE</b><br>10 – 20 g/m <sup>2</sup> / drying            |   |
|   | <b>UVEHEL TOP COAT LACQUER</b><br>8 – 12 g/m <sup>2</sup> / UV curing             |   |
| <b>HARDBOARD</b><br>Color shades and prints according to customer needs | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              | Recommended line speed 15 – 25m/min<br>Tunnel drying at 30 – 40°C<br>Roller hardness for enamels 30 – 40 ShA<br>Roller hardness for printing 60 ShA<br>Water-base enamels are available in RAL color shades or according to customer's sample<br>Water-based color for printing is available in various color shades<br>Top coat lacquer is available in various gloss finishes |
|   | <b>WATER-BASED WHITE FILLER</b><br>20 – 30 g/m <sup>2</sup> / drying              |   |
|   | <b>WATER-BASED BASE</b><br>10 – 20 g/m <sup>2</sup> / drying                      |   |
|   | <b>WATER-BASED PIGMENTED BASE</b><br>10 – 20 g/m <sup>2</sup> / drying            |   |
|   | <b>WATER-BASED COATING FOR PRINTS</b><br>Versatile, depending on customer's needs |   |
|   | <b>UVEHEL TOP COAT LACQUER</b><br>8 – 12 g/m <sup>2</sup> / UV curing             |   |





## CHARACTERISTICS

- Good transfer of material from the roller to the surface
- Viscosity of the delivered material is the working viscosity
- Good coverage
- Treatment without sanding between coatings
- Great selection of colors and designs (wooden structure imitation)
- Stacking and packing of elements immediately after UV curing

## APPLICATION EQUIPMENT

For applying such coatings you need a roller application line, a drying tunnel and a UV drier.

Water-based enamel tunnel drier must have:

- a drying zone with gradual temperature increase
- continuous air flow for removing water vapor from elements

For UV lacquer drying Hg lamps are required (80W/cm).

## IMPORTANT NOTIFICATIONS

- Quality of rollers and line speed affect the quality of the surface treatment.
- Surface temperature, line speed and light bulb quality can affect the curing process and the top lacquer gloss effect.
- Before usage the materials have to be stirred well.
- The materials must be stored in a sealed package at +5 to +30 °C.
- The materials must be protected from direct sunlight.
- The materials must not freeze.



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