



UVEHEL

UV CURING SYSTEMS FOR FLAT FURNITURE

UVEHEL UV curing systems offer a complete solution for advanced manufacturers of flat interior furniture, which includes wooden doors, tables, cupboards, shelves, and parquet. The systems present an optimal combination of lacquers and enamels, processed with modern UV curing procedures for care of wood veneer, solid wood, MDF and

different foils. Based on the most advanced technology, treated wooden furniture with UVEHEL systems obtains modern appearance and excellent protection. The utmost advantage of UVEHEL systems for furniture manufacturers are lower costs of production due to higher time-efficiency and optimal material consumption.

HIGHLIGHTS

- Cost-efficient production procedures
- Low material consumption for the given surface (25% of the typical spray application)
- Minimal waste of materials during production (up to 5% / conventional solvent systems 60%)
- Low VOC emissions in production (95 -100% solid content)
- Excellent chemical and physical characteristics of UV-cured films



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System	Products and thickness	Recommendations
Wood veneer or solid wood Transparent system	UVEHEL Basecoat or putty 20-25 g/m ² / Gelling	Different basecoats can be used, depending on the substrates. Topcoat in different gloss can be also applied with laser roller (18-22 g/m ²).
	UVEHEL Basecoat 15-20 g/m ² / Gelling	
	UVEHEL Basecoat 12-15 g/m ² / Curing	
	UVEHEL Topcoat 4-5 g/m ² / Gelling	
MDF Pigmented system	UVEHEL Topcoat 4-5 g/m ² / Curing	For good closing of MDF, two passes of basecoats are needed. Topcoat in different gloss and colors can be applied also with laser roller (18-22 g/m ²).
	UVEHEL Basecoat enamel or putty 25-30g/m ² / Gelling	
	UVEHEL Basecoat enamel 20-25g/m ² / Gelling	
	UVEHEL Basecoat enamel 15-18g/m ² / Curing	
Foils Transparent or pigmented	UVEHEL Topcoat enamel 6-8g/m ² / Gelling	For adhesion on different foils, adhesion primer must be used (WB or UV). Topcoat in different gloss and colors can be also applied with a laser roller (18-22 g/m ²).
	UVEHEL Topcoat enamel 6-8g/m ² / Curing	
	Adhesion WB or UV Basecoat (5-10g/m ²) - drying 30 sek/60°C or UV Gelling	
	UVEHEL Basecoat lacquer / enamel or putty 20-25g/m ² / Gelling	
Foils Transparent or pigmented	UVEHEL Basecoat lacquer / enamel 15-18g/m ² / Curing	Topcoat in different gloss and colors can be also applied with a laser roller (18-22 g/m ²).
	UVEHEL Topcoat lacquer / enamel 6-8g/m ² / Gelling	
	UVEHEL Topcoat lacquer / enamel 6-8g/m ² / Curing	
	UVEHEL Topcoat lacquer / enamel 6-8g/m ² / Curing	



APPLICATION

- Viscosity of the delivered material is the working viscosity.
- Apply putties and basecoats directly on sanded natural or stained surfaces.
- First apply water-based primer or special UV-primer for better adhesion on foils.
- To achieve sufficient intermediate adhesion sand the surface (P 400-500) before application of next coating.
- Stacking of elements is possible immediately after UV curing.

- Fast curing of UVEHEL coatings with a UV drier allows higher time-efficiency in production process.
- UVEHEL systems benefit furniture manufacturers with decreasing production costs by allowing lower material consumption and waste of materials during production.

UV CURING EQUIPMENT

UV curing lacquers/enamels are cured by passing through UV-drier, equipped with medium-pressure Hg lamps and Ga lamps with radiation intensity of 80 – 120 w/cm.

Transparent system:

- Hg lamps are necessary
- Gelling: 1xHg lamp (1x80 W/cm)
- Curing: 2xHg lamp (2x80 W/cm)

Pigmented system:

- Ga lamps and Hg lamps are necessary
- Gelling: 1xGa lamp (1x80 W/cm)
- Curing: 1xGa lamp + 1xHg lamp (2x80 W/cm)

Arrangement of lamps:

- Ga lamp must be on first position.
- Hg lamps must be on the second/third positions.
- Quantity of emitted light and line's speed influence UV curing.
- Surface temperature and line's speed influence gloss effect.
- It is obligatory to keep mirrors/reflectors clean and to refer to the operating hours of lamps.





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