UVEHEL AQUA

UV CURING WATER-BASED SYSTEMS

HIGH PERFORMANCE SYSTEM FOR INTERIOR FURNITURE

UVEHEL AQUA coatings enable high-quality treatment of demanding interior furniture surfaces, such as kitchens and bathrooms, however, they are also suitable for the treatment of living area and bedroom furniture, profiled elements.

VOC content is very low. The system meets the European standards and is certified in accordance with the IKEA IOS MAT 0066 requirements, R4, R2 resistance class.

HIGHLIGHTS

- Optimal solution for demanding surfaces - kitchen and bathroom furniture
- Cost and time efficient production
- Low VOC content
- 1K and 2K systems
- Can be used in combination with water-based primers
- Perfect chemical and physical characteristics of cured films

HELIOS

UV CURING WATER-BASED SYSTEMS FOR INTERIOR

SYSTEM	PRODUCTS	WET FILM THICKNESS	APPLICATION METOD / RECOMMENDATIONS
WOOD VENEER *or* **SOLID WOOD** Transparent system	UVEHEL AQUA base coat UVEHEL AQUA top coat	100 - 120 µm 90 - 120 µm	Spraying: top coat in different gloss can be applied.
WOOD VENEER *or* **SOLID WOOD** Economical transparent system	HIDROHEL base coat UVEHEL AQUA top coat	100 - 120 µm 90 - 120 µm	Spraying: top coat in different gloss can be applied.
MDF Pigmented system	UVEHEL AQUA base coat enamel UVEHEL AQUA enamel	100 - 140 µm 100 - 120 µm	Spraying: top coat in different gloss can be applied. For good closing of MDF, two or three layers of base coats are needed.
MDF Economical pigmented system	HIDROHEL base coat enamel UVEHEL AQUA enamel	100 - 140 µm 100 - 120 µm	Spraying: top coat in different gloss can be applied. For good closing of MDF, two or three layers of base coats are needed.
FOILS Transparent or pigmented system	UVEHEL AQUA base coat UVEHEL AQUA top coat lacquer / enamel	80 - 100 µm 100 - 130 µm	Spraying: top coat in different gloss can be applied.

APPLICATION

- Application methods: air, airmix and airless spraying, curtain application, also rolling.
- Prior to UV curing a drying zone is required for water evaporation
- Application equipment and packaging must be made of stainless steel.
- Storage and transport at temperatures between +5°C and 35°C; they should not freeze.

UVEHEL AQUA COATING SYSTEM

STEP 1

PHYSICAL DRYING (WATER EVAPORATION)

Drying time for base, universal and top coats:

DRYING PROCEDURE	TEMPERATURE	TIME
Laminar dryer	20 - 30°C	3 - 5 minutes
Jet dryer	40 - 55°C	3 - 5 minutes
Laminar dryer	20 - 25°C	3 - 5 minutes

It is possible to use in **vertical dryer.**

Additional options for fast (forced) drying:

- IR lamps
- IRCK radiant lamps
- IRM lamps
- NIR lamps

Time and drying regimes are defined with the technological procedure and if necessary adjusted to the line equipment.

STEP 2

UV CURING

UV curing lacquers/enamels are cured by passing through UV dryer, 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.

Helios TBLUS d.o.o.
Količevo 65, 1230 Domžale
Slovenia
wood.coatings@helios.si
www.helios-woodcoatings.com

392335