

Some Uses for UV Curable Resins and Coatings in Wood Industry and Related Equipment Repairs

UV curing involves exposing a specially formulated resin to high-intensity UV light. This process initiates a photochemical reaction that causes the coating to harden and become cured, creating a durable scratch-resistant finish on wood surfaces.

The main types of UV curing light sources used in wood coating applications are mercury vapor lamps, microwave UV systems, and LED systems. Mercury vapor lamps and microwave UV have traditionally been used and are well-established in the industry, while LED technology is newer and rapidly gaining popularity due to higher energy efficiency and longer lamp lifetime.

UV curing is widely used to support wood coating, excimer gelling, parquet oils and coatings, and inkjet inks for wood decoration. Many UV-curable fillers, stains, sealers, primers, and topcoats (pigmented, clear, varnishes, lacquers) are used in the manufacture of a broad range of wood-based products, including furniture, pre-finished flooring, cabinets, doors, panels, and MDF.

UV Curing for Furniture

UV curing is often used to cure coatings on wood-based materials used in the manufacturing of furniture such as chairs, tables, shelving, and cabinets. It provides a durable, scratch-resistant finish that can withstand wear and tear.

UV Curing for Flooring

UV curing is used to cure coatings on hardwood floors, engineered wood floors, and luxury vinyl tile. UV curing creates a hard, durable finish and can enhance the natural beauty of wood and vinyl flooring.

UV Curing for Cabinets

UV curing is used to cure coatings on wood-based materials used in the manufacture of wood cabinets for kitchens, bathroom vanities and custom furniture pieces, producing a hard, scratch-resistant finish that can withstand daily wear and tear.

UV Curing for Wood-Based Substrates

UV curing is a popular technology for wood-based substrates such as kitchen cabinets, office furniture, wood flooring, and wall paneling. Some common wood-based substrates are medium density fiberboard (MDF), plywood, particleboard, and solid wood.

Advantages of UV curing include:

High Efficiency and Fast Production Rates

- Faster curing times
- Elimination of lengthy drying times
- Precise control to reduce waste
- Elimination of lamp warmup times
- Ideal for temperature-sensitive applications