

Dry Coating

Dry coating can be achieved with a formulated granular wax that is tumbled with the parts needing to be coated. This allows for reduction in amount of VOC's generated while giving adequate coverage on the parts. The pieces actually rub the surfaces of one another to create adequate coating. Great for coating small pieces such as wood buttons, napkin rings, and balls.

Benefits

- ! reduce material waste
- ! no VOC's

Cautions

- ! parts must be uniform in size with no sharp edges or irregularities in shape.

Cleaning/Stripping:

Alternatives to Methylene Chloride

Methylene chloride, the active ingredient in many coating strippers, has come under increasing scrutiny for its potential damage to health and the environment. Alternative stripping materials have been developed that have less potential for damage. These materials utilize the active ingredients:

- ! N - methyl pyrrolidone (NMP), a water soluble, biodegradable solvent that has relatively low toxicity, is nonflammable and noncarcinogenic (but may need to be reported to EPA).
- ! Gamma - Butyrolactone, a water soluble, biodegradable solvent that is FDA approved and has tested noncarcinogenic in rats and mice

Benefits

- ! biodegradable
- ! nonflammable
- ! no offensive vapors
- ! soap and water cleanup
- ! less VOC emissions

Cautions

- ! hazardous waste may still be generated when using non-hazardous strippers because of the characteristics of the materials being stripped

Gerry Wood Products Case Study Suring, Wisconsin

This company which produces wooden juvenile furniture and expansion gates converted to a dry application of a formulated wax coating for selected parts in lieu of a laquer coating. The process remained the same: using a tumbling process, mixing the wax and parts in a barrel before rotating.

Payback was immediate with an annual savings of over \$200,000 based on drastically reduced VOC emissions and hazardous wastes from daily clean-up.

Larson Juhl, Inc. Case Study Ashland, Wisconsin

Larson Juhl, in its finishing operations for wood picture frame mouldings, was using 8-10 gallons of xylene/day to clean out the paint piping/gun system. In addition, paint color changes occurred 30-45 times a day, sometimes with lighter colors following the dark.

To reduce disposal costs which had increased 400 percent, the company removed paint distribution manifolds and excess piping. Additional valving was installed for a closed loop system. Colors now run from lighter to darker as the day progresses, as well.

The payback was immediate, resulting in \$50,000 savings /year.