

## Appendix E. Best Practices for Screen-Printing Applications and Finishing

Brand RSLs may restrict substances not subject to usage bans to certain concentrations in finished products. These substances may be used, but appropriate steps must be taken to ensure that residual amounts or accidental contaminants do not exceed documented limits. Solvents, for example, may be used with careful attention to drying/curing times to greatly reduce or eliminate the amount remaining on the finished product. This appendix provides general guidance on drying/curing best practices as well as examples of good and bad practices for maintaining screen-print production areas.

### Curing Overview

Many applications and finishes require curing, such as resin finishing for a 3-D effect, easy-care, or screen printing. “Curing” is not limited to drying materials or garments, but involves chemical reactions that begin at specific temperatures and take time to complete. It is important to understand and control the curing temperature and duration to fully react chemicals.

Information about appropriate curing conditions can be obtained from chemical suppliers. Improper or incomplete curing may lead to both chemical product safety (RSL) and performance issues (e.g., losing the 3-D/easycare effect after a few home launderings).

### Best Practices

Suppliers working with resins, screen prints, or other applications that require curing should:

- Request technical data sheets (TDSs) from chemical suppliers and follow the listed curing condition instructions.
- Document the finishing/screen-print formulation and curing conditions.

- Calibrate the oven regularly and keep a calibration record. (Note: The digital display attached to the oven should be confirmed to represent the actual temperature in the oven.)
- If a conveyor belt oven is used in factories located in colder climates, understand the temperature gradient at different parts of the oven, as this may result in inconsistent quality or concentrations of residual chemicals in the finished garments.
- Start the curing time requirement when the garment surface temperature reaches the required curing temperature, not simply when the garment is placed in the oven.

Temperature checking stickers are available, but these only record the highest temperature on the garment surface. There are also digital devices that can check the garment surface temperature at regular time intervals. These devices can give a more detailed profile of garment surface temperature differences, which allows for better control of the curing process.

### RESOURCE: Best Practices for Screen-Printing Applications & Printing

This slide deck provides examples and pictures of best and worst practices at screen-print facilities.

