



The

Stock Doctor

with helpful tips from your manufacturer

Issue 4

"Having trouble controlling curl during your label lamination process? Label curl is generally caused by a myriad of issues and is occasionally observed after lamination. In this issue, we will discuss the cause of curl and some solutions to eliminate it."

What are the different types of curl?

Label Curl

Label curl detected immediately after lamination is likely the result of excessive tension and/or heat. Curl can be either in the machine or cross direction. An easy test is to remove a label from the liner immediately after printing and observe if excessive curl exists.

Cross Direction (Cd) Curl

Cross Direction (CD) curl is generally only observed with paper label stocks and is a result of a change in the equilibrium moisture of the base paper.

Machine Direction (Md) Curl

Machine Direction (MD) curl is frequently related to tension imbalance between the substrate and the overlamine. This imbalance may include stretching of one or both substrates as well as drag through the press. Below are several press-side suggestions on how to resolve issues with MD curl.

Common solutions to MD Curl

- Always run "ZERO" brake tension on the overlamine.
- The use of unwind assist yields a smooth and quiet unwind. acpo has unwind assists in stock ready to ship.
- Utilize as many idlers between the unwind and nip as possible. Install more if necessary.
- Minimize the pressure at the lamination nip, apply only enough to prevent air entrapment. Too much pressure squeezes the laminate and fine creases or wrinkles will develop.
- If possible use a nip station which features top and bottom GEAR driven rolls, minimize pressure and maximize S wrap to the face of the nip rolls.
- Thread the substrate through all press stations and utilize all nips to drive web.
- Use even pressure on both gear and operator side of the nip.

