

RECORDED BENEFITS

- \$75K on chipboard application alone
- Fast transition on/off grades using dye
- No need to sewer or run-out colored starch
- Easier shade control and a more uniform sheet appearance
- Eliminated bleed issue

Winning Solution for Dying Chipboard

Pergasol™ Direct Dyes and Pergabase™ Basic Dyes

Customer Challenge

A customer in North America was producing chipboard using a competitive acid dye. Acid dyes have poor fiber affinity, so wet end addition resulted in excessive dye use, poor color yield and high costs. Customer began applying the competitors' acid dye to the sheet surface in the water boxes. Economics improved, but the sheet was very mottled and bled during conversion resulting in complaints. Customer was seeking a cost-effective dye alternative that would not bleed and provide a more uniform appearance.

Recommended Solution

Solenis performed a dye audit and discussed the challenges associated with using the existing dye program. The suggestion was made to use cationic and direct dyes in the wet end. The benefits included superior dye retention, low bleed and uniform appearance. Based on a hand sheet study undertaken at Solenis' Customer Applications Laboratory, a three-dye package consisting of Pergasol and Pergabase dyes was recommended. A machine trial was proposed.

Results Achieved

The successful trial resulted in very a uniform sheet appearance and significantly improved bleed fastness. The same dye package is now being used in coated kraft back grades as well, reducing complexity at the mill.

Paper Machine Specifics

- 8-ply Cylinder Machine - Production Rate: 16 TPH
- Dye added to bottom and/or top ply (~15% of sheet)
- Neat dye addition to back liner thick stock pump
- Furnish: 100% Recycled News

