

CASE STUDY

EPPCO

◆ EPPCO VIRTUALLY ELIMINATES STICKIES PROBLEMS ◆ SOLVENT USE REDUCED 98% ◆ 4% INCREMENTAL PRODUCTION GAIN

Operation: Mid-Western – Integrated Tissue Operation (180 Tons/Day)

Customer:

Machines -
Grades -

Twin Wire Former
100% Recycled Lt. Wt. Tissue

Problem:

Mill was experiencing stickies deposition on the forming fabrics causing holes in the tissue sheet. The unacceptable appearance resulted in downgraded & culled production. Press felt filling (stickies/inorganic) also resulted in poor sheet transfer and required significant felt cleaning.

The advanced Deink Stock Preparation system (.008 slot fine screens and extensive lightweight cleaning capacity) was being pushed for maximum production. The system produced highly variable quality stock for the machine. Mill's goal was to maintain high stock preparation production, while improving stickies removal.

Solution:

EPPCO Technology was initiated as a Contaminants "Modification" Treatment. EPPCO1000 is fed to the pulper. The EPPCO1000 promotes the contaminants to "independently" release from the fiber substrate. The larger contaminants are chemically stabilized and more efficiently removed by the stock preparation equipment.

EPPCO1000 also modifies the micro-stickies contaminants that are typically present in the furnish. Testing before & after EPPCO1000 addition showed substantially greater contaminants are being rejected by the fine screens & lightweight cleaners. EPPCO1000 improved stock quality and minimized variation.

EPPCO1000 product is fed to the pulper (7 pH @ 115 degrees F).

Results:

The results documented pulp quality improved because of EPPCO's ability to assist the mechanical equipment to remove stickies. EPPCO1000 treatment resulted in a dramatic positive impact on machine efficiency. As outlined in the graphs

below: The mill's major justification criteria outlined an 11 T/D increase in "First Quality Production". Four (4) tons were due to reduced off quality tons, while the additional 7 tons represents a 4% gain in incremental production (above budgeted goals). Downtime due to stickies was reduced substantially. "Solvent Use" was reduced by 98%. These results emphasize a 3 to 1 R.O.I. that easily justifies the EPPCO program.

Additional areas of value attributed to EPPCO1000 include improved tissue softness/stretch characteristics and improved rewinder & converting performance.

NOTE: Results collected over a 6 month period (3 months EPPCO1000 are compared to 3 months with competitive treatments).

