**CASE HISTORY**
Graphic & Specialty Papers

**RECORDED BENEFITS**
- 15% improvement in efficiency versus the incumbent technology
- 35% reduction in cost
- Defects, holes and contaminants reduced or maintained, depending on grade, with higher levels of PCW furnish
- Maintained or improved machine runnability, depending on grade
- Retention ran slightly higher
- No change in charge contribution on the paper machine process

**Supercharged Cationic Polymer Reduces Cost in Competitive Market**

**PerForm™ PC8933 Polymer**

**Customer Challenge**
A Midwest producer of coated freesheet was interested in reducing its costs and addressing latex deposition coming from its coated broke system. The latex deposits, which occurred primarily in the dryer section, led to sheet holes and defects as well as downtime due to sheet breaks and cleaning. The incumbent program was working but was very costly to the mill.

**Recommended Solution**
Solenis recommended PerForm PC8933, a supercharged cationic polymer, to act as a coated broke fixative. PC8933 is a high charge, low molecular weight, FDA approved emulsion that requires no make down equipment prior to feed. The recommended feed point was post coated broke screen prior to the tickler refiners at a dosage of 3 lbs/ton.

**Results Achieved**
Coated broke turbidities were significantly reduced with a 15% lower dosage and at a 35% lower cost compared to the incumbent program. Machine runnability was strong during the first four weeks of the trial with a 50% decrease in machine breaks. Defects, holes and contamination were decreased or maintained, depending on the grade. There was no noticeable change in charge in the system but retention ran slightly higher with the new broke treatment. The mill has permanently converted to the PerForm PC8933 program.

![Coated Broke Turbidity Chart]

- **Pretrial**: 63
- **Trial**: 34 (-45%)
- **At 35% Cost Savings**: 37 (-42%)

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RDC-PW-CH-N567-0718

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