

RECORDED BENEFITS

- Reduced CD wet tensile variation across all grades
- Improved wet tensile quality target adherence across all grades
- Modified CD / MD wet tensile ratio and lowered wet tensile targets
- Optimized wet strength chemistry across all grades by 15-25% resulting in reduction of 825,000 wet lbs. wet strength resin annually
- Sustainability - reduced CO₂e 622 tons/year via reduced tanker truck deliveries
- No off-quality production across all major grades
- Operating under OPTIX autonomous control 94% of time available

AI-Driven Chemical Optimization Ensures Dry End Quality Target Adherence

OPTIX™ Applied Intelligence

Customer Challenge

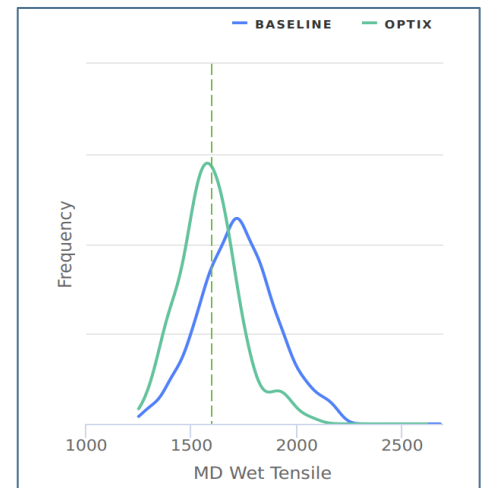
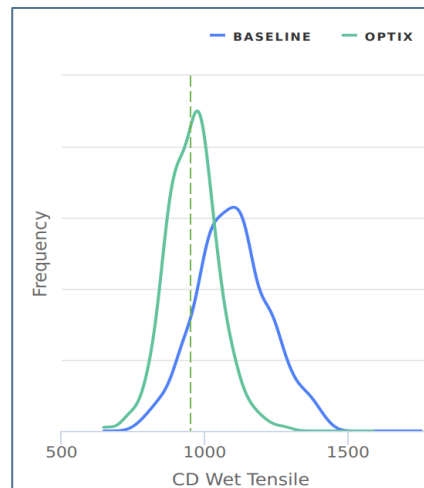
Variations in both CD and MD wet tensile quality tests at a North American recycled tissue and towel producer forced operators to run higher chemical feeds rates as insurance to ensure no off-quality towel was produced.

Recommended Solution

Solenis recommended OPTIX Applied Intelligence – a machine-learning, predictive analytics platform with autonomous control capabilities. OPTIX generates a real-time virtual measure of wet tensile quality using machine learning capabilities.

Results Achieved

Reduced wet tensile base sheet quality variation and increased target quality adherence. Predictable quality target adherence allowed mill management to adjust CD/MD wet tensile ratios and drive wet strength targets closer to the lower control limits. Autonomous control reduced lag time for wet strength adjustments with smaller, quicker incremental dosage changes in real time. Chemical optimization via OPTIX autonomous control and improved target adherence led to annual reduction of wet strength resin of 825,000 lbs.



Next Steps

A second OPTIX solution is being employed to optimize dry strength on the same machine to further reduce variability and improve overall equipment effectiveness.

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