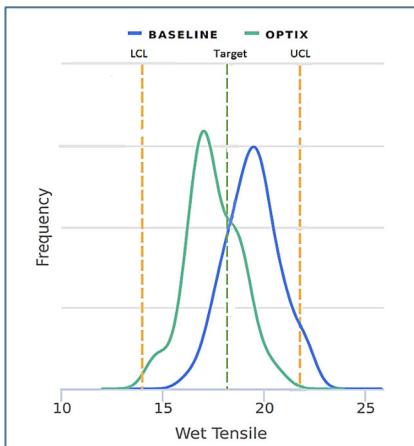


RECORDED BENEFITS

- Reduced wet tensile variation across all grades
- Wet tensile target specifications reduced due to improved target adherence
- Reduced wet strength chemistry usage across all major grades by approximately 2.3 MM wet lbs. annually
- Sustainability - reduced CO₂e 2840 tons/year via reduced tanker truck deliveries
- No off-quality production across all major grades
- Improved wet tensile quality target adherence across all grades



AI-Driven Autonomous Control Reduces Paper Machine Dry End Test Variability

OPTIX™ Applied Intelligence

Customer Challenge

A large North American Liquid Packaging mill was interested in reducing wet tensile variation and improving wet tensile quality adherence. This mill employed a typical wet end chemical dosage strategy practiced throughout the industry of waiting for dry end quality lab tests to be completed or validated by re-testing before chemical setpoints are changed. These delays typically force operations to run higher chemical feed rates as insurance to ensure no off-quality board is produced.

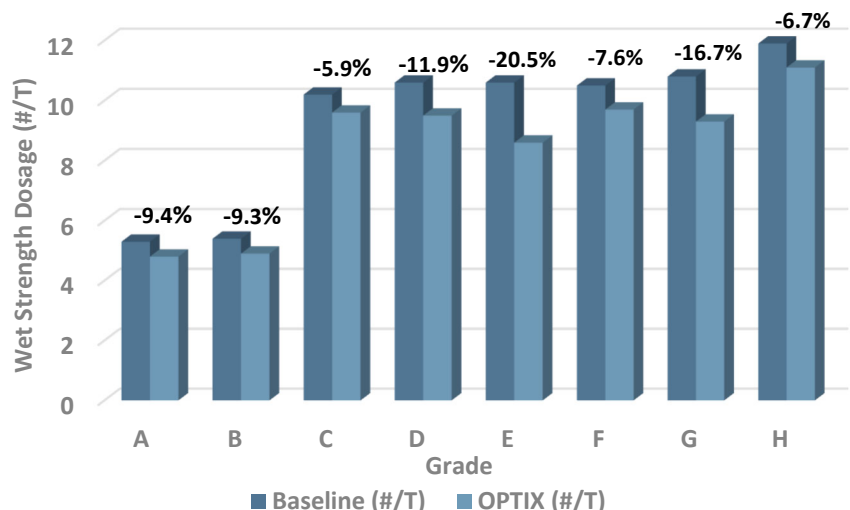
Recommended Solution

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

1. Reduced lag time for wet strength adjustments. Smaller, quicker incremental dosage changes in real time replaced the previous control strategy of waiting for dry end quality tests.
2. Mill management drove wet strength targets closer to the lower control limits with predictable quality target adherence.
3. Optimized wet strength dosage quicker during grade changes
4. Reduced variation in wet strength usage from operator to operator and from shift to shift.

Wet Strength Reduction by Grade



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