

Conventional Machine Sees Improved Machine Speed, Reduced Downtime & Optimized Chemical Program with Tulip™ 64850



BACKGROUND

Tissue and towel makers require flexible Yankee coating programs across all machine platforms and all grade environments. Nalco Water provides tissue and towel makers with a robust portfolio of adhesive, modifier and release products, combined with unrivaled expertise, service and digital technology (Yankee Operation Intelligence), to improve productivity, product quality and Yankee protection.

In an effort to produce a soft, high adhesion and durable adhesive chemistry, Nalco Water developed the Tulip™ 64850 creping technology. The Tulip™ program consists of a MVP (Modified Vinyl Polymer) resin that provides excellent adhesion at significantly lower addition rates compared to PAE resins.

A conventional machine producing 225 TPD in North America was experiencing issues with sheet stability resulting in excessive breaks and felt contamination. Nalco Water proposed trialing Tulip™ 64850 to aid these challenges.

SOLUTION

Nalco Water's Tulip™ 64850 is significantly softer than even fully cross-linked PAE resins resulting in creping blade tip penetration and the elimination of the troublesome outside sheet edge build-up commonly witnessed on tissue machines. Tulip™ 64850 generates a malleable film with enough durability to protect the Yankee during the creping process. Nalco Water's field and technical expertise, combined with our robust portfolio, allows us to optimize programs for individual needs.

Compared to common PAE programs, Nalco Water's Tulip™ 64850 provides:

- **ENHANCED** softness while maintaining other desired sheet characteristics
- **STRONG PERFORMANCE** with low add-on rates
- **ENVIRONMENTALLY-FRIENDLY** technology with no VOC or chloro-organic by-products

ANNUAL SAVINGS



PRODUCTIVITY

Increased Machine Speed

1%

Reduced Downtime

0.7 hrs/day

Reduced Add-ons

45%

TOTAL VALUE DELIVERED

>\$800,000

RESULTS

Nalco Water trialed and implemented Tulip™ 64850 and created the following value for the mill:

- Increased machine speed by 1% and reduced downtime by 0.7-hour/day, approximately \$600K
- Reduced add-on by 45%, approximately \$200K
- Improved coating film and uniformity
- Improved sheet transfer and adhesion development
- Reduced edge build-up and increased Yankee protection

CONCLUSION

Tulip™ 64850 provides significant benefits compared to common PAE programs. This is only one product in the robust portfolio of Yankee adhesive, modifier, and release products that Nalco Water offers.

Machine Speed \$600K Savings

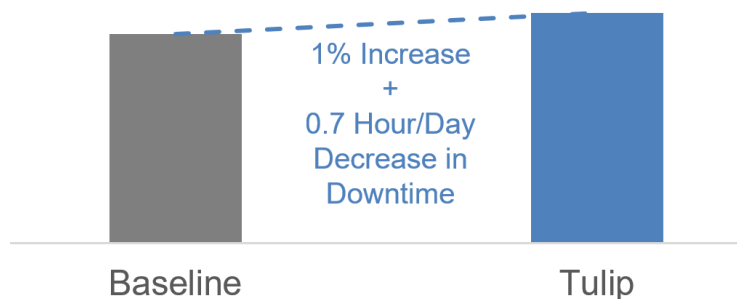


Figure 1: The machine speed trends before and after the Nalco Water Treatment Program

Add-On Rate \$200K Savings

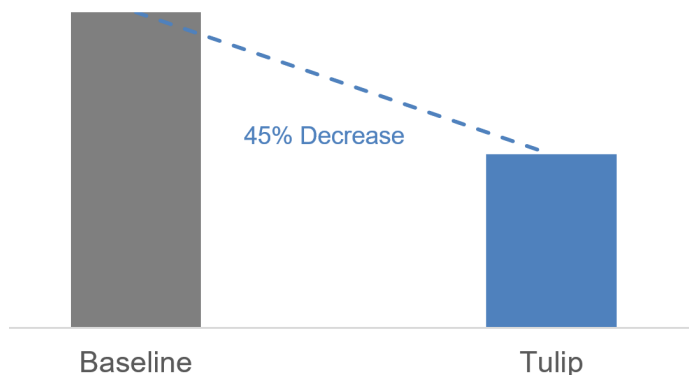


Figure 2: The Add-On rate savings after the Nalco Water Treatment Program.

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