



Innovative Dry Strength Additive Delivers Tensile Improvement and Record Speed

Hercobond™ 8800 Paper Performance Additive

Customer Overview:

- Segment: Away From Home
- Product(s): 12# Recycled Napkin
- Location: Southeastern United States

Application Overview:

- Type: Dry Strength
- Equipment: Crescent Former
- Capacity: 125 tpd at 5000 fpm
- Other: 12# Napkin

Existing Treatment:

- No prior treatment

Problem Summary:

The mill's #2 tissue machine had been struggling to achieve the tensile specs on its 12# napkin production. Due to limited drainage capability, issues with transfer holes were experienced whenever speed was increased. The customer was not able to adjust refining in either direction to improve strength or drainage.

Customer Objectives:

- Increase tensile strength by 10% over baseline
- Reduce the jet to wire ratio to improve drainage
- Increase machine speed
- Maintain runnability

Solenis Solution:

Solenis recommended a one-day evaluation of a new dry strength additive marketed as Hercobond 8800 paper performance additive. The product was applied to the suction of the bleach tower pump at a dosage of 1.5 lb/ton. An immediate tensile increase occurred, and the mill was able to reduce the J/W ratio. During the next 48 hours, the machine speed was increased by 400 fpm. Tensile results maintained throughout the evaluation and returned to previous levels shortly after the trial ended.

Customer Benefits:

- Tensile Index increased 15% over baseline
- Enabled the machine to lower J/W ratio
- Speed increased by 400 fpm

Conclusion:

The customer was struggling on their 12# napkin production due to strength and drainage limitations. These challenges were preventing the customer from increasing speed. Solenis evaluated Hercobond 8800 paper performance additive with impressive result.

The mill witnessed a 15% tensile improvement and was able to increase machine speed by 400 fpm.

The paper mill manager extended the trial from one day to three days based on the results and is excited about the future opportunities with this technology. The trial results were ultimately shared internally across the corporation.

