Fusion[™] Strength and Performance Technology

Flexible Program Designed to Provide Customized Solutions for Specific Needs



- Increased strength
- Increased production and yield with lower costs
- Reduced process variation
- Reduced wet-end starch usage
- Reduced freshwater usage



FusionSM Strength and Performance Technology

Achieving sheet strength efficiently and profitably has been a quest of packaging producers for decades. For many years, mills were able to meet their strength requirements using tried-and-true tools such as fiber selection, refining, sheet formation and wet pressing. If they needed additional strength, they turned to wet-end or surface starch to provide incremental strength improvements.

As the pulp and paper industry has dedicated itself to improving sustainability, certain trends have emerged that make it challenging to hit strength targets. These trends include increasing recycle content, decreasing old corrugated container (OCC) quality, increasing water system closure and reducing the weight and/or volume of packaging, which saves energy and raw materials. Single-component strength additive technologies have been challenged to deliver the necessary performance to respond to these trends, even with improved capabilities of newer, more advanced machines.

To overcome these challenges, Solenis recently introduced Fusion strength and performance technology designed to give you complete flexibility to meet your operational needs, from basic strength performance to more radical high-strength improvements.

As a result of these gains, many mills have actually been able to improve their competitive advantage because they can now make grades that weren't possible before the introduction of Fusion strength and performance technology.

Medium 23# and 26#

Basis Weight Reduction

MILL NEEDS

FUSION PROGRAM BENEFITS



Optimize and/or boost productivity

- Reduced overall chemical spend
- Improved paper machine performance - speed, energy consumption, runnability, drainage
- Improved wet-end performance
- Reduced variation and deposition



Optimize cost performance

- Reduced overall chemical spend
- Increased strength
- Reduced fresh water use
- Increased sludge re-use



Radical strength development

- Lightweighting
- Highest direct dry strength performance - reduce basis weight, produce high value added grade, optimize furnish cost
- Stabilized wet-end chemistry
- Reduced foam generation

27 26 25 24 23 23M 26M

Pre Fusion

Real-world Results

A recycled medium packaging mill was experiencing reduced profits due to higher recycled fiber pricing. Over weighting to meet target STFI and CMT was also occurring. After implementing a Fusion strength and performance technology program on two major grades (23# and 26#), the mill experienced a number of benefits, including:

- Reduced basis weight by 6.1% on 23# Medium
- Reduced basis weight by 1.9% on 26# Medium
- Maintained target speeds
- Achieved net profit improvement of 2.0 M annually

More Information

To learn more, contact your technical sales representative or visit us online.



Fusion