FiberLean MFC — A proven, sustainable path to new grades at low CapEx and cost savings

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INTRODUCTION:

Your brown linerboard can become White Top without a rebuild. Or you can lightweight at equal strength. You have greater flexibility with virgin fiber, lower-quality recycled furnish, as well as minerals and other additives, With your own scalable MFC onsite module from FiberLean — and the know-how of applications specialists — you have a runway for innovations and a revolutionary cost-saving tool. Best of all, MFC, (micro-fibrillated cellulose,) is a natural, sustainable advantage with the same DNA as the fiber resources you already use.

Never has the paper and board making industry been more in the spotlight as a sustainable path to productive manufacturing, focusing on gaining the full potential from managed and urban forests and reducing waste through a well-established recycling infrastructure.

FiberLean® MFC (micro-fibrillated cellulose) products and know-how are ideal for accelerating raw material reduction and flexibility and opening the way for new grades. What makes FiberLean MFC onsite, scalable modules a game-changer is the ability to deliver ongoing savings and value-added gains for producers—providing proven economic and ecological advances onsite and with ease.

The portfolio of FiberLean products now includes pure MFC, MFC composites with minerals, and recovered fiber formulations. All FiberLean MFC offerings are easy to incorporate into your current practices at your mill location.

Figure 1: FiberLean MFC onsite scalable modules center around robust grinding technology. High-throughput continuous operation--Low maintenance costs and high uptime (>95% plant availability)--Chemical-free process--Highly-automated modular plant design with online monitoring.

Figure 2: Without a rebuild or coater installation, your brown linerboard can become White Top thanks to FiberLean FloT, diversifying your portfolio into white, printable box manufacturing markets.

Brown linerboard to first-class White Top with FiberLean on Top (FloT)

According to Enrico de Landerset, CEO of FiberLean Technologies, Ltd., “It’s not been possible to make White Top without a massive rebuild until the development of FiberLean on Top (FloT). Customers can break into markets with newly invented grades at lower cost, assuring higher profitability. Highly printable surfaces for digital printing is another benefit.”

In addition to the FloT for White Top and FloT Jet applicators at the wet end, FiberLean offers a wide range of surface ad barrier options not previously possible—all aimed at sustainability targets.

Not all MFC is equal

MFC commercial power is about mastery of cellulosic fibrils based on intense R & D and inventions—always building on nature. With more than 650 patents for FiberLean MFC and customers on three continents, scientists and application specialists have developed hundreds of recipes to help customers realize optimization gains and savings. It's important to note that robust, proprietary "grinding technology with finesse" provides consistently high performance.

Small footprint; massive results

Small enough to jog around in three minutes, onsite FiberLean MFC Modules at paper mills have fast payback.

Adds de Landerset, "Our MFC modules require little change in processes and are easily scalable. Depending on the mill's output, they typically feature two to five grinders, our core equipment capability."

As Danny Ingle, FiberLean COO, says, "More than simply offering products and equipment, our applications teams are a valuable deliverable. As a solutions provider, we realize the importance of having low-maintenance, flexible, and complete offerings. We help customers evolve, always focused on well-planned trials that lead to continuous improvement. We understand the challenges of adapting formulations to succeed on high-speed paper machines."

MFC products and know-how reduce chemicals, water, and energy consumption. Efficiency and creative developments happen partly because of close observation by applications experts on a real-time basis, both onsite and remotely. As for substitution, you can be more flexible with hardwood, softwood, and recycled fiber resources.

Continues Ingle, "You can reduce starch and reduce or eliminate man-made raw materials that are not environmentally friendly."

Growing with customers

Biomaterials are inherently about sustainable solutions. FiberLean scientists and applications specialists understand this value for industrial customers.

Concludes de Landerset, "Everything the FiberLean team invents is with a clear purpose, driven by customer needs."

Over the next five years, FiberLean projects business with 25-50 customers and EUR5-10 million in sales for each MFC module onsite. Complimentary channels, such as a merchant model, will also provide smaller quantities of FiberLean MFC from company facilities and potential joint ventures.

The FiberLean MFC, micro-fibrillated cellulose portfolio of products, MFC scalable modules, and applications know-how, all build on the networking concepts of nature—and inventive ingenuity, to create entirely new solutions for paper and boardmakers.

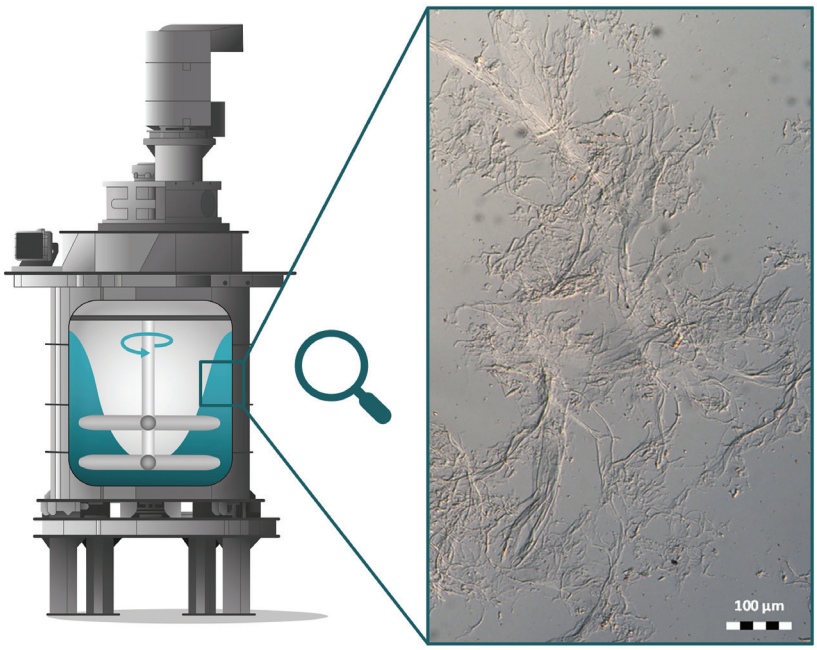

Figure 3: The unique FiberLean grinding process creates interconnecting fiber. Networks are highly fibrillated for strength and high performance.

"FiberLean MFC modules are easy to install and easy to run. Very quickly, they support equal or greater performance of existing grades and serve as a runway to create entirely new ones".

Figure 4: Proven across many paper and packaging grades, FiberLean MFC saves 20 to 80EUR/ton in raw material cost reductions and efficiency gains. FiberLean MFC formulations are also ideal for supporting new grade development.