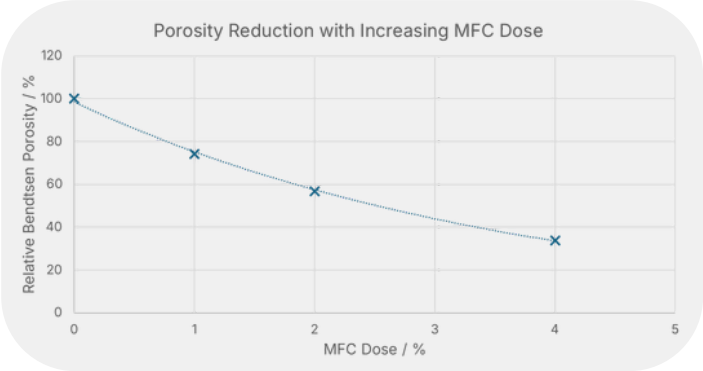
FiberLean
Strength by Design

Case Study: MFC in Coated Paper

MFC in the base furnish

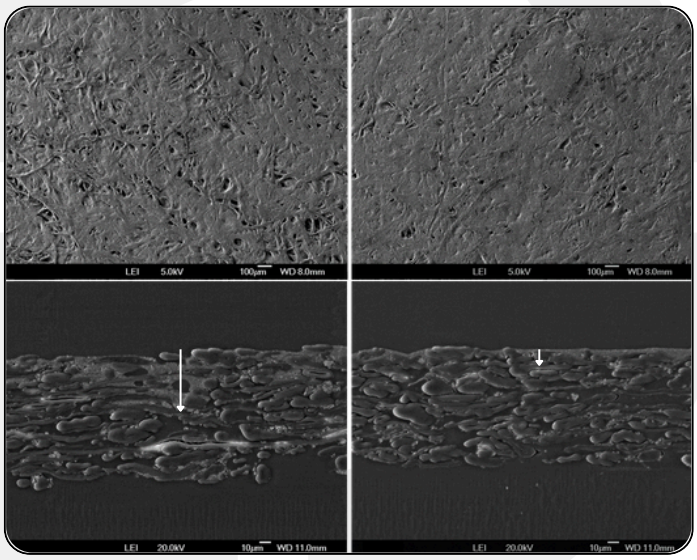
Base Sheet Porosity Reduction

Addition of MFC signficantly reduces porosity of the base sheet with a 2% dose of MFC giving over 40% reduction and a 4% dose of MFC giving over 60% reduction.



10 g/m² coating
No MFC in base

10 g/m² coating
2% MFC in base



Experimental details: 80 g/m² woodfree paper was prepared on a pilot paper machine: 70% Eucalyptus / 30% Pine (450 CSF), 20% GCC filler, 0% and 2% MFC, no sizing added. Paper was coated with: GCC / Kaolin formulation (10 pph Latex), Coat weights between 6 to 14 g/m², Supercalendared.

Improved Coating Hold-out

The addition of 2% MFC in the base sheet reduced coating penetration due to the smoother and more closed surface structure.

It was found that for every 1% MFC added, coat weight can be reduced by 10-15% while maintaining properties.

If coat weight was kept the same and MFC added to the base, improved properties were observed.

MFC production equipment recommendation: FiberLean G250

- Grinder footprint: 2.6 x 2.6 m
- Throughput 140 dry kg MFC/h
- Suitable for all chemical and most recycled pulps
- Food contact regulatory clearance

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