

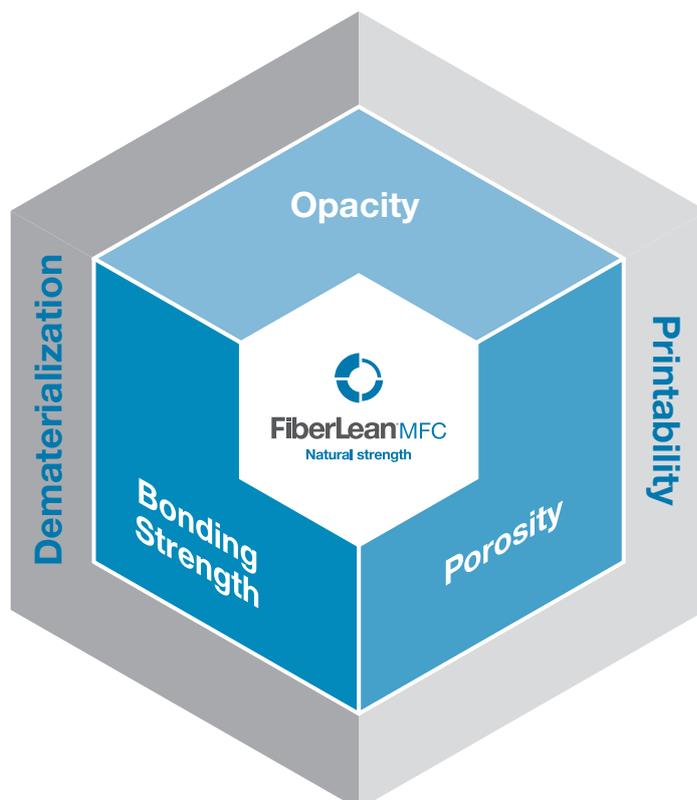


**FiberLean<sup>®</sup>MFC**  
Natural strength

## Micro-Fibrillated Cellulose

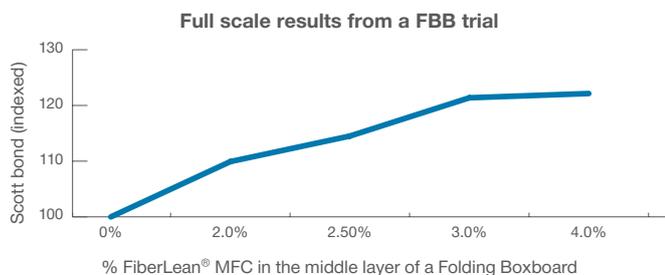
# Packaging Solutions

FiberLean<sup>®</sup> MFC products are tailored for several packaging applications. In Folding Box Board, FiberLean<sup>®</sup> MFC applied in the middle layer increases the bonding strength allowing for bulkier - less refined - fibers to be used to further separate the outer layers increasing the stiffness of the board at any given basis weight. For the outer layers of White Top Linerboard and Cartonboard, FiberLean<sup>®</sup> MFC increases the opacity and strength of the top layer, whilst reducing porosity allowing for better coverage and basis weight reduction.

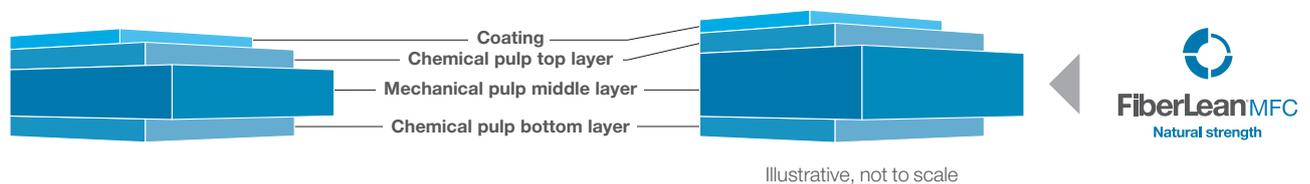


# FiberLean® MFC for the middle layer

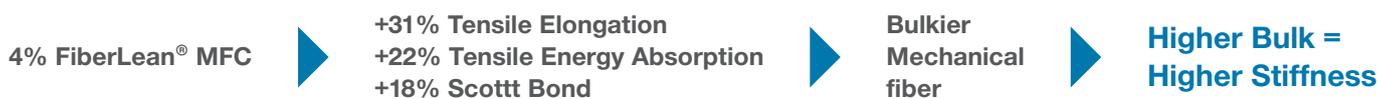
For Folding Boxboard, the bonding strength obtained from adding FiberLean® MFC to the middle layer allows use of a bulkier/less refined pulp to provide better overall bulk and stiffness at any given grammage.



In this application FiberLean® MFC has low level of mineral, typically 50% of the product by weight is MFC. The resulting minor addition of filler does not affect the capability of the production of a bulkier and stiffer board and improves contributes to the dewatering on the board machine.



## Middle Layer addition

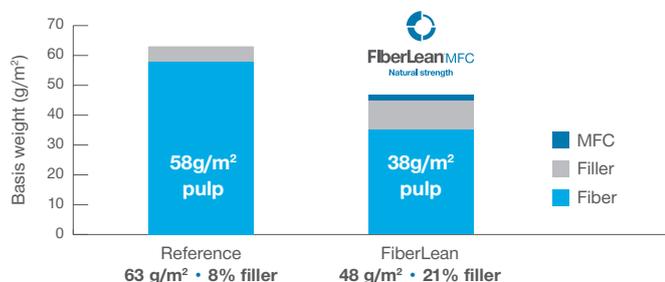


# FiberLean® MFC in the outer layers

The combined impact on strength and opacity is the basis for White Top Liner-board application as well as for use in the outer layers of Folding Boxboard.

### Target paper properties:

- ✓ 84% opacity
- ✓ 1.5 kN/m tensile
- ✓ Constant brightness



By converting a small portion of the pulp to MFC it is possible to make paper with the same strength, opacity and brightness with 35% less fiber. This allows the board producer to increase the fibers in the middle layer and make a stronger board, or reduce the overall weight of the board.

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**Innovative by nature**

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