SaXcell technical information

SaXcell is a regenerated Man Made Cellulose Fiber made from used cotton textiles. The SaXcell fibers are perfectly fit for making high quality new textiles such as garments or household textiles.

The unique features of the SaXcell fiber are:

- It's made to last; SaXcell fibers are strong and soft at the same time.
- It's made from used textiles; this requires much less water, land and chemicals compared to conventional cotton. A truly circular fiber.
  Our process uses about 10 liter of water per kg SaXcell, whereas for growing cotton, water consumption is at least 2000 liter of water per kg of cotton.
- It's sustainable; the recycling process used is a lyocell process. This is more sustainable than growing cotton or using a viscose process for recycling. Less dyes are needed to colour the SaXcell fibers which further reduces the negative environmental impact.

SaXcell has a strategic collaboration with Birla Cellulose for the wetspinning process. The SaXcell fibers are at the moment produced by Birla Cellulose.

The SaXcell pulp -used for making the fibers- has a few strict quality parameters: the length of the cellulose chain is carefully controlled to be within specific boundaries.The purity of the pulp is also strictly controlled because of the requirements defined by the lyocell process.

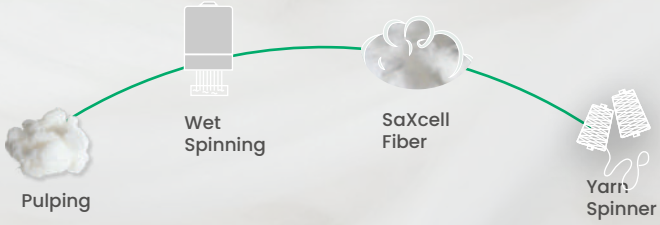
The ultimate goal is to produce fibers made from 100% SaXcell pulp. However, in this phase Birla Cellulose and SaXcell decided to produce blends of 10 – 50 % SaXcell and woodpulp.

Certified fiber properties SaXcell L30	
Linear density (dtex)	1,29
Breaking Force (cN)	4,84
Elongation at break (%)	12,3
Breaking tenacity (cN/tex)	37,9
Mean length of fibers (mm)	38,9
Whiteness index berger	101,84
Avivage (% oil pick-up)	0,159

The fiber properties with the 30/70 SaXcell/wood pulp blend -called SaXcell L30- are excellent. The table shows fiber test results. The fibers are perfectly fit for yarn spinning.
The test has been conducted by Textile Lab Hengelo (NL) in October 2023. This is a certified laboratory.

Yarn spinning is beyond the scope and influence of SaXcell. However, tests have been conducted on both yarns and cloth made from SaXcell and SaXcell blends with cotton. The results show that the dye uptake of SaXcell is at least 40% higher than for cotton, which mean that a significant reduction in dyestuff use can be achieved.

Currently a Life Cycle Analysis (LCA) is being conducted to prove SaXcell's sustainability statements. The LCA is made by an independent party and will be representative for the SaXcell fiber. The LCA report will become available in 2024.



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