

Climate-neutral wood-based cellulose fibers: The pathway of the Lenzing Group

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Global warming (climate change) is the most critical issue for human society and nature in the coming years and decades. The commitments of the Paris Agreement to limit global warming to well below 2°C and the later reports of IPCC urging to keep below 1,5°C demand drastic reductions of greenhouse gas emissions, especially of CO₂ emissions from fossil sources. All stakeholders in economy and society have to contribute their share of these reductions. For the global textile and apparel industry, organizations like UN Fashion Charter for Climate Action and Textile Exchange are setting goals for the whole industry according to climate science. The Science-Based Targets initiative defines and promotes best practices in target setting and independently assesses companies' targets regarding their consistency with the reduction levels required by science.

The Lenzing Group has set an ambitious science-based target (SBT) of 50% reduction of CO₂ emissions (scope 1, 2, and 3) per ton of product sold in 2030 compared to a 2017 baseline. Net-zero emissions for scope 1 and 2 are the target for 2050. Lenzing is the first wood-based fiber producer with an approved SBT. The pathway to these targets includes energy reduction, changes in energy mix, integration of pulp and fiber production, and new technology development.

While energy supply can be fully decarbonized when the appropriate technologies are used, many common materials contain carbon as a structural element, which cannot be replaced. In materials, the transition needed goes towards renewable carbon. Lenzing's business model is firmly rooted in the use of wood from sustainably managed forests and plantations, which remove carbon from the atmosphere and turn it into raw materials from renewable carbon. This renewable carbon can be naturally cycled by the processes of biodegradation, or industrially recycled, as Lenzing's REFIBRA™ technology enables the production of wood-based (regenerated) cellulose fibers with recycled content.