

When addressing topics of environmental impact or climate change, the challenges we face today have never been as inescapable. As time passes, it is becoming increasingly clear that immediate action needs to be undertaken to turn the tide. Whether talking about the issues around global warming, loss in biodiversity or resource utilisation and consumption, it all boils down to the same issue; we need to drastically start changing the way we live, act and go about our daily lives.

At Sappi, we recognise that people around the world are seeking sustainable, scalable, and responsible alternatives to non-renewables. With our knowledge and competencies, we embrace that opportunity with Sappi Symbio, a cellulose fibre solution that reinforces (bio)plastics and makes them stronger, lighter and more sustainable.

Sappi Symbio cellulose fibre is of a consistently high quality. What is unique about the product is that it is offered in a very pure form, offering specific benefits like odourlessness, lightness of colour and high brightness. This provides excellent dispersion outcomes, with Symbio cellulose fibres being nonvisible in the end application. Due to the low specific gravity of cellulose, incorporating Symbio into (bio) polymers retains the low weight feature of plastics, in contrast to classical mineral fillers like talc and glass fibre. Reinforcing (bio)polymers with Symbio will increase the material stiffness compared to unfilled plastic, while increasing its tensile and flexural modulus.

Symbio not only meets stringent requirements set by OEM's, it also provides additional tactile benefits like the warm feel of wood, combined with a great natural look. Symbio adds value to your products through both its natural origin and performance benefits.

We believe it is our responsibility to use the full potential of each tree harvested. Sappi Symbio improves the life cycle analyses of your product and process, compared to fossil-based, conventional materials. At the end-of-use phase, Symbio can be mechanically recycled, retaining the valuable woodfibres inside the polymer matrix without sacrificing the performance and characteristics. Overall, Symbio decreases the carbon footprint (measured in kg  $CO_2$ ), lowers the environmental and ecological footprint, and has a positive global impact. Sappi Symbio cellulose fibre originates from sustainably-managed forests and is controlled by  $FSC^{TM}$  certification ( $FSC^{TM}$  CO15022).

Our products are offered as cellulose masterbatch solutions, as well as pre-dispersed in selected polymer matrices. If you are looking for more sustainable and environmentally-friendly solutions, we look forward to working with you.

