CASE STUDY

Taking sustainability to the next level with Boticário

Value chain collaboration helps lower environmental footprint of Arbo Puro fragrance packaging



DESTEOBOTICÁRIO







From its modest origins as a small apothecary making seaweed-based beauty products, O Boticário has grown to become one of Brazil's most popular cosmetic companies. Its extensive franchise network in Brazil is augmented by a retail presence in around 15 other countries and its e-commerce channels.

Since 1977, Boticário has celebrated the beauty and natural riches of Brazil, and is committed to preserving these for posterity. The company is already doing its part to make the cosmetics industry more sustainable. For example, the fragrance formulation in its Arbo product line is composed of 92% natural ingredients. And by using eco-based alcohol made from sugarcane bagasse and other biomass residues, it puts bio-based waste matter to good use. Boticário also operates Boti Recicla, Brazil's largest reverse logistics program: by encouraging customers to refill and reuse their durable fragrance bottles, the company is using less raw material, and consuming less energy, in its packaging production operations.

Yet Boticário aims to do even more to lessen the environmental impact of its products and packaging formats. By 2030, it intends to use raw materials from renewable or other alternative sources for packaging components, such as caps, which have typically been made of virgin plastics.

"We are gratified to have worked with partners who are absolutely aligned with Grupo Boticário's own environmental agenda. The material solution they were able to provide not only meets our stringent quality standards, but helps us further reduce the environmental impact of our products in a meaningful way."

Franciele SaorinSr. Packaging Scientist, Grupo Boticário



CASE STUDY Neste Aptar Boticário

Value chain cooperation centered on a Bornewables[™] grade

In the collaborative development of more environmentally compatible caps for its fragrance Arbo Puro, Boticário was supported by Neste, a leading supplier of renewable diesel, sustainable aviation fuel and raw material for polymers from renewable and recycled sources; Borealis, global provider of advanced and sustainable polyolefin solutions; and Aptar (AptarGroup, Inc.), global manufacturer of consumer dispenser packaging for the cosmetic and pharmaceutical industries, among others.

Neste supplied to Borealis the raw material Neste™ RE, a renewable drop-in solution that can be used alone or blended with other materials to obtain products of the same high quality as those made using fossil-based feedstock. Borealis then used this feedstock - made from bio-based waste and residue oils - to manufacture a grade in its Bornewables[™] portfolio of renewable-based polymers, Bn HG385MO. This sustainably sourced grade offers the same performance characteristics as the virgin one, combining excellent flow properties with narrow molecular weight distribution. Aptar used Bn HG383MO to manufacture the bottle caps, the final step within the mass balance approach that tracks the flow of materials used in production. Each of the three partners are certified according to the ISCC PLUS (International Sustainability & Carbon Certification) system that ensures traceability and verification of renewable-based content across the entire supply chain.

"According to our public compromises of sustainability in which we have committed to reaching 100% recyclable, reusable or compostable solutions by 2025, we at Aptar work hardly to purpose solutions that allow the plastic circularity keeping the quality and robustness of packaging. It is gratifying to work with partners who share the same dedication to this goal."

Pedro GarciaProduct Line Manager, Latin America, Beauty, Aptar



New cap enhances overall sustainability of the final product

The new Arbo Puro cap is safe, of high quality, and is 100% recyclable. It retains the same desired performance specifications as its virgin-based predecessor but has a significantly lower carbon footprint.

According to calculations made by Boticário, the use of the cap based on the Bornewables grade obtains a carbon dioxide equivalent (CO2-e) reduction of 51% while consuming 11 fewer tons of raw virgin polyolefins.* This cradle-to-gate computation is based on sales projections for the caps of the new final product, and compared to the caps used in a comparable Arbo cologne portfolio. The calculation heeded the materials required for each scenario; production processes for each scenario; and transportation of raw materials to Boticário's plant in São José dos Pinhais, state of Paraná.**

Image: © Boticario

 $^{^{\}star}$ The CO2-e metric reflects the global warming potential (GWP) over 20 years

^{**} Please note that the CO2 reduction calculation made by our value chain partner was not verified by Borealis and Borealis assumes no responsibility for such calculation.

"This project is an excellent example of EverMinds™ in action: customer-centric collaboration among value chain partners that accelerates plastics circularity, and helps lower the carbon footprint of essential packaging components."

Florin Sabau

Global Commercial Director Consumer Products Flexible, Borealis



"Neste RE is our solution for more sustainable plastics. By just changing the source of carbon, and not the product, we can help the industry to make a fast transition from fossil-based feedstocks to those based on renewable and recycled materials with a significant lower carbon footprint."

Jeroen Verhoeven

Vice President Value Chain Development for renewable polymers and chemicals, Neste

Borealis and Borouge packaging solutions are making everyday life easier

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Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. In Europe, Borealis is also an innovative leader in polyolefins recycling and a major producer of base chemicals. We leverage our polymer expertise and decades of experience to offer value-adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility.

With operations in over 120 countries and head offices in Vienna, Austria, Borealis employs around 6,000 people. In 2022, we generated a net profit of EUR 2.1 billion. OMV, the Austria-based international oil and gas company, owns 75% of our shares. The Abu Dhabi National Oil Company (ADNOC), based in the United Arab Emirates (UAE), owns the remaining 25%.

In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy or polyoiethis and expanding our geographic footprint to better serve our customers around the globe. Our operations are augmented by two important plint universe. Borouge (with ADNOC, headquartered in the UAE); and Baystar^{mi} (with TotalEnergies, based in the USE) as based in the USE.

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