

Is Recycled Polyester From Water Bottles Greenwashing?

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I spend a lot of time covering gear and commerce within the outdoor industry, and the apparel side of the business often ends up being one of the first areas across the fashion industry to adopt new technologies and methodologies.

Outdoor apparel brands have long struggled with an environmental impact issue as they try to make gear more waterproof and more technical, often turning to chemicals and finishes that are, frankly, not great for the planet.

One of the more intriguing recent developments was the late 2010s sudden rush to integrate recycled polyester, primarily from recycled single-use water bottles made from PET plastic, into as many garments as possible.

In a recent report, Zero Waste Europe estimates that the increased interest in integrating recycled PET (rPET) into clothing is upping overall demand for the material by as much as 33%. Brands are quickly buying up recycled polyester textile as an alternative to using virgin material, but the positive impact isn't as clear as the marketing would make it seem.

How recycled polyester can 'break the loop'

“There are a lot of problems with making food-grade plastic into a garment. It’s not a closed loop,” says Joanne Brasch, special projects manager at the [California Product Stewardship Council \(CPSC\)](#).

The Zero Waste Europe report notes that even before PET transformation can begin, the physical recycling of the material is still not uniform across many countries with modernized recycling infrastructures. There are a number of sorting and processing issues that come into play, such as dividing food-grade vs. non-food grade and making sure that the right PET gets to the right source, whether being used to make new drink bottles or being processed further for rPET textile creation. Simply put, there may be enough PET out there, but it’s not being recycled efficiently enough for textile companies to draw from sources that can be used over and over again.

Brasch is at the front line of this conversation, as one of the CPSC’s main roles is to help brands connect with local governments to conceive and establish better waste programs for some of the hardest-to-recycle products, including clothing. California is arguably one of the global leaders in testing and implementing various textile recycling programs, such as carpet, where the state has had a [stewardship program](#) in place for a decade.

Brasch explains that the process PET plastic bottles have to go through to become usable in a garment setting is actually further away from circularity, rather than closer to it. The addition of chemicals, labels and polymers decreases the ability to recycle the clothing again—potentially up to 100%. That means the product ends up at the landfill.

Last year, Higg released a first analysis of Repreve, a popular branded version of recycled polyester, compared to virgin material, and found that it has up to a [42% lower pollution rate](#) than virgin material. But to get to that lower potential impact, PET needs to have crossover viability in the recycling system.

With this in mind, Zero Waste Europe says that the increasing use of rPET from the textile industry may actually be “[breaking the loop](#).” Removing food-grade PET from the recycling process to create garment material ends up making that piece of plastic no longer recyclable.

Brasch says her preferred solution is to keep food-grade plastic and other material separate to make the entire process more circular.

“[rPET] gives brands an off-ramp to not design for circularity,” she says. There’s no incentive for them to design products for better use, and it’s a disincentive of green design.”

Does recycled polyester save water and limit emissions?

For both marketing and environmental experts alike, this is a potentially billion-dollar question. The problem is, there just hasn’t been enough credible research yet to offer true calculations.

For Brasch, the biggest issue is the physical transportation and effort it takes to process PET into garment textiles. “The most impactful areas are the overall greenhouse gas footprint – moving materials [through each portion of the process], and adding water and energy for conversion,” she says.

The American recycling infrastructure is simply not set up to meet the demand for rPET, so while a good portion of the initial PET might come from American sources, it ends up going overseas for final processing and production into new garments. Brasch says the research is just beginning about how much this transport reduces the potential positive impact of using recycled materials.

She relates the impact to California’s nascent [mattress recycling program](#), which she noted has \$1 million research fund for any entity that can figure out how to viably recycle the various layers and chemicals within mattresses, but so far, no one has submitted a feasible solution. Many of the same waterproofing and additive issues that come up in mattresses also come up in recycling and transitioning PET into textile fabric, and that means less opportunity for realistic loop closure.

Additionally, Zero Waste Europe notes that only 26% of the output from European raw rPET from bottles actually makes it into textile-ready pellets, with the rest going to other plastic products that require pellets for reintegration as a new product, such as packaging, piping and furniture.

The tussle between the two industries highlights the continued “leakage” in Europe’s PET recycling system, in which PET ends up lost to the landfill, incineration or other environmental causes. The organization estimates leakage could be as high as 75% of all the PET plastic placed on the market.

So if you’re reading this and wondering what your most planet-positive purchase could be, your best bet is to check out [re-commerce](#) or [resale](#). The most “sustainable” product is likely the one that’s already in the system.

