

PET 101:

Why PET is more environmentally friendly than aluminum and glass.

Aluminum and glass containers certainly have their place in this world—just like PET (polyethylene terephthalate). But aluminum and glass bring their own challenges with them. The information below can help you put their suitability for use and recycling into perspective with PET. The more you know, the more you realize why PET is the world's #1 recovered plastic.



PET crushes aluminum.

Discarded daily. Nearly 100 million aluminum beverage cans are discarded (not recycled) every day in the USA.*

*Source: 2019, CMI and SBAcci Study

Cans sink. They accumulate on ocean floors, in delicate reefs, and in bays and riverbeds. This makes them more difficult to see and collect. Their tabs also break off and are ingested by wildlife and fish.



Energy intensive. To produce cans, aluminum must be smelted at temperatures over 1,000°C, while PET can be produced and extruded into bottles at around 250–300°C.

More greenhouse gases. Even when made with recycled content, aluminum can manufacturing generates more tons of CO₂ per ton of metal than do PET bottles made with recycled PET.*

*Source: 2016, EPA Study on Gas Emissions Using Waste Reduction Model (WARM)

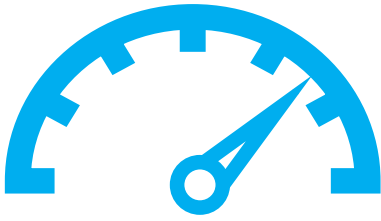
It must be mined. All aluminum starts out as bauxite ore. Mining bauxite causes deforestation and land erosion, and it pollutes local streams.

It leaves behind. Aluminum's refining process requires caustic soda and extraction chemicals, leaving residual products in soil, such as uranium, thorium and radium.

Declining demand. Canned water may still find a receptive market. But September 2019 data from Wood Mackenzie indicates a decline in the consumption of aluminum beverage packaging over the next 10 years.



PET sees through glass.



Ten times heavier. Glass can weigh up to 10 times more than equivalent plastic, making products in glass bottles or containers more costly to transport.* This causes more fuel to be consumed and/or more trips to be made.

*Source: 2019, PackagingOfTheWorld.com

More GHGs. Over their life cycles, glass containers or jars can create up to 33% more greenhouse gases than plastic containers.*

*Source: 2008, Springer.com, Life Cycle Assessment (LCA)

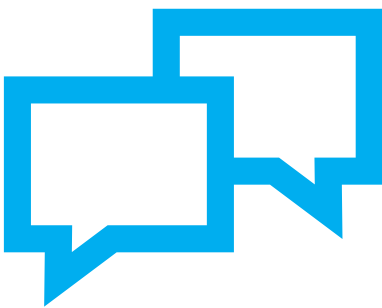
Glass breaks. It's a fact: Glass shatters when dropped or damaged in transit. This presents a safety hazard, not just to consumers, but also to workers in recycling facilities.

Fragments in waste. Broken glass can contaminate other recyclables such as paper and cardboard. And many recycling facilities aren't equipped to separate out bits of broken glass. Some no longer accept broken glass containers at all, according to recyclecoach.com.

Colors can complicate. While clear glass is easily recycled, many recycling facilities require consumers to separate glass by color due to the varying materials in blue, brown, green and other colors of glass.



Help us increase PET recycling rates.



At NAPCOR, we're always working to protect the environment. Here are some things you can do to help the world's #1 plastic get recycled even more.

- Rinse PET bottles and containers thoroughly before placing them in a recycle bin.
- Lids or caps are often not made of PET, but can be recycled with the bottle if left on.
- Do not put PET plastics in with regular trash, or they won't be recycled.
- Spread the good word about PET plastics among family, friends and the community.
- Submit an article about PET recycling to your local newspaper.
- Start your own PET recycling club.
- Write to your state or U.S. congressional representative about the benefits of PET.
- Offer to speak about PET recycling at your local school.

Learn more about the positive economic and environmental benefits of PET plastics at [PositivelyPET.org](https://www.PositivelyPET.org).