

PET Resin Facts at a Glance

- PET is the common name for *polyethylene terephthalate*, also known as polyester. It is a clear, strong, and lightweight plastic that is non-reactive and resistant to attack by micro-organisms. It is identified by the triangular #1 resin code symbol.
- PET is widely used around the world for packaging foods and beverages, especially convenience-sized soft drinks, juices and water. It is also popular for packaging shampoo, mouthwash, liquid hand soap, and other consumer products. The molded PET bottle was patented in 1973.
- PET is approved as safe for food and beverage contact by the FDA and health-safety regulatory authorities throughout the world. It has been extensively studied, tested, and used without incident for more than 30 years.
- PET is created by combining ethylene glycol and terephthalic acid. In North America, the polymer was first synthesized in the mid-1940s by DuPont chemists.
- When PET is used for fiber or fabric applications, it is referred to as “polyester.” When used containers and other applications, it is called “PET” or “PET resin.”
- PET does *not* contain BPA, phthalates, dioxins, lead, or endocrine disrupters. PET bottles will *not* release harmful toxins if left in a hot car, if frozen or microwaved, if used more than once, or if repeatedly washed and rinsed. All are urban myths.
- PET is fully recyclable and the most recycled plastic in the U.S. It is recycled by thoroughly washing and re-melting it, or by chemically breaking it down to its component materials to make new PET resin.
- Products that can be made from recycled PET include new PET bottles and containers, carpet, clothing, industrial strapping, rope, fiberfill for winter jackets and sleeping bags, automotive parts, even construction materials.
- More than 1.5 billion pounds of used PET bottles and containers were recovered in the U.S. in 2010 for recycling. The U.S. recycling rate for PET was 29% in 2010.
- If placed in a landfill, PET bottles and containers pose no risk of leaching or contaminating groundwater, since PET is inert and won't biologically degrade. Because it can easily be crushed flat, it takes up relatively little landfill space.
- Although its feedstocks are petroleum based, PET has a highly favorable eco-profile in comparison to glass, aluminum and other container materials. Its exceptional strength-to-weight ratio is key to its energy and resource efficiency, allowing more product to be delivered with less packaging, less weight and less fuel.
- Life cycle analyses of PET have consistently confirmed the environmental benefits of PET as a packaging material.