



## PET Gets the Job Done!

PET (Polyethylene Terephthalate) is one of the most recognizable forms of plastic packaging. Common applications are:

- Bottles for water, soft drinks; jars for mayonnaise and mustard; berry boxes with lids; and trays for microwaveable foods. PET is also used for the blister packaging of expensive electronic components.

## PET Fast Facts

### Environmental Impact

- Less than 50 grams of PET is used in the manufacture of a soft drink bottle that holds 2 litres of “pop”. Approximately 2000 grams of glass would be required to do the same job.
- The light weight of PET bottles reduces the quantity of fuel required to transport products from the bottling plant to the store. Using less fuel reduces greenhouse gas emissions, as well as emissions responsible for smog.
- PET containers also have the least environmental impact of all soft drink container systems in terms of the total weight of both total air emissions and total waterborne wastes.<sup>1</sup>

### Health & Safety

- The PET used in food and beverage packaging has been approved by Health Canada and other leading world health organizations, like the U.S. Food and Drug Administration.
- The PET beverage bottle is designed for single use, but the plastic poses no danger when refilled. PET is an inert plastic and does not leach harmful materials into its contents – even when the bottle is frozen or left in a heated car. However, all reusable containers should be cleaned regularly to prevent the growth of bacteria.
- Neither dioxins nor Bisphenol-A are used in the manufacture of PET bottles.

### Economical

- Only 14 grams of PET is needed to deliver ½ litre of water, making the material extremely economical to use. Additionally, the lightness of PET means lower transportation costs than alternative materials to get the product to store shelves. Choosing PET affords businesses the ability to keep costs low for consumers.

### Recycling

- PET bottles are very recyclable and highly recycled in Canada. The demand for PET bottles exceeds current supply.
- Certain methods of collection of used PET bottles enable them to be recycled back into bottles. Most PET is recycled into high-value textiles used for fleece sweatshirts, non-allergenic fillings for pillows and sleeping bags. It takes 25, 2-litre PET soft drink bottles to make one fleece sweatshirt.

### Landfill

- PET is an inert material and does not leach harmful materials.
- In jurisdictions with efficient bottle recovery programs, relatively few PET bottles end up in landfill. In some parts of Canada, the recovery rate of PET bottles exceeds 80%.
- Residential waste is comprised of: Organics 45%, Paper 22%, Plastics in general 9%, Glass 5%, Metals 3% and Other 16%.<sup>2</sup>

### Litter

- Litter is a “people problem”. People litter, not products.
- More and more municipal street corners and parks are being equipped with facilities to capture materials – including PET bottles – for recycling.

<sup>1</sup> NAPCOR, *The Environmental Impact of Soft Drink Delivery Systems*.

<sup>2</sup> Waste Audits: Vancouver, Victoria, Calgary, Winnipeg, Lunenburg

**Myth: PET is not recyclable.**

**Fact:** PET is the most recycled of all plastics. It is recycled into many valuable new products, such as polyester fibre for filling pillows, sleeping bags and fleece sweatshirts. PET bottles can also be recycled into new bottles. There is strong market demand for recycled PET in North America and around the world.

**Myth: PET does not biodegrade.**

**Fact:** PET has been designed specifically to be an inert material. That means it will not break down in a landfill and release harmful substances.

**Myth: PET leaches dioxins when water is frozen in PET bottles.**

**Fact:** There is no danger inherent in freezing PET bottles or in leaving them in a hot car. Dioxins have no role or presence in PET and its manufacture. Furthermore, dioxins are formed only by combustion at extremely high temperatures.

**Myth: PET leaches toxic chemicals in the landfill.**

**Fact:** Since PET is inert in a landfill, it does not produce leachates. Because PET bottles do not degrade, they do not generate greenhouse gas emissions in landfill.

**Myth: Alternative items to PET exist.**

**Fact:** Glass and aluminum are alternative materials for packaging soft drinks. Because of their superior packaging-to-product ratio, however, PET bottles and containers consistently consume less energy and generate less solid waste by weight than their counterparts. PET containers also have the least environmental impact of all soft drink container systems in terms of the weight of both total air emissions and total waterborne wastes.

**Myth: PET contains harmful chemicals.**

**Fact:** PET has been approved by Health Canada (and other leading health organizations like the U.S. Food and Drug Administration) for food-contact use. This means that it meets all applicable health standards and is safe for use. Antimony is used as a catalyst in the production of PET, but the levels of Antimony that have been detected in water contained in PET bottles are many times lower than that permitted by agencies such as Health Canada or the FDA. Antimony is a naturally occurring element in nature. It is found, for example, in well water. Bisphenol-A is not used in the production of PET material.

**Myth: PET is taking up large amounts of landfill space.**

**Fact:** Data from Environment Canada show that all plastic packaging accounts for less than 10 per cent of landfill content. PET bottles have the highest recycling rate of all plastic packaging and hence PET is a small component of plastics in landfill in most jurisdictions.

Increase the Recycling of PET Bottles Today! They are Too Valuable to Waste.

