

The Blue Box Series

Every wonder what happens to recyclables once you place them at curb or take them to your local recycling depot? In this series, RCBC will examine where and how newsprint, cardboard, metal cans, glass containers, rigid plastics and plastic bags are recycled. This month RCBC looks at plastic containers.



part 5: plastic containers

Plastic containers are a petroleum-based material that are used to package goods. Most plastic containers have a resin code, generally found at the bottom of the container. These codes were introduced in 1988 to help recyclers identify the different types of plastics in the waste stream. See the table on the next page for information on the different types of plastics.

plastic type overview

Resin Code	Plastic	Properties	Product Packaging	Recycled Product
1	Polyethylene Teraphthalate, PET	Clear and excellent at keeping beverages carbonated.	Soft drink and salad dressing containers.	Bottles, clothing and carpet.
2	High Density Polyethylene, HDPE	Stiff and resistant to chemicals and cold temperatures.	Milk jugs, ice cream containers and household cleaner bottles.	Picnic tables, drainage pipes and oil bottles.
3	Polyvinyl Chloride, PVC	Clear and resistant to chemicals, grease and oil.	Vegetable oil bottles with handles and meat wraps.	Flooring, paneling and packaging.
4	Low Density Polyethylene, LDPE	Flexible and easy to seal.	Various bags, like garbage, bread and frozen food bags.	Bags, trash cans and paneling.
5	Polypropylene, PP	Resistant to chemicals, heat, grease and oil.	Margarine tubs, yogurt containers and baby bottles.	Flower pots and pallets.
6	Polystyrene, PS	Easily foamed, insulating and doesn't absorb excess fluids.	Coffee cups, meat trays and pharmaceutical bottles.	CD cases and office accessories.
7	Other	Mixture of resins and properties are dependent on the combination.	Polycarbonate bottles	Custom products and lumber.

the recycling process

1. Plastic containers are collected and sent to a recycling facility.
2. The containers are shredded into flakes and sent to a floatation tank.
3. In the tank, the flakes float and the dense contaminants sink. The contaminants are then removed.
4. Glue and adhesives are removed via heat.
5. The flakes are washed in stages and passed through a screen to remove any last contaminants.
6. The flakes are dried and melted.
7. The molten plastic passes through an extruder, creating long strands.
8. Once the strands have cooled, they are pelletized and sold to manufacturers to create new plastic products.
9. The pellets are sold to manufacturers to create new plastic products.

where can it be recycled?

Most residents can recycle their plastic containers through their municipal curbside recycling program or at their local recycling depot. The plastic types accepted vary from municipality to municipality. The most common plastics being recycled are #1, 2, 4 and 5. This is because they are considered high grade plastics and there is a stronger market for them. Plastics #3, 6 and 7 are considered low grade plastics.

where does it go?

Plastic containers have the highest food contamination levels than any other blue box recyclable. Contamination and the fact that they need to be hand sorted makes them costly to recycle. There are many plastic processing plants across Canada. The main one in BC is Merlin Plastics Supply Inc. in Delta.

why recycle plastic containers?

- A plastic bottle can take one million years to breakdown in a landfill.
- Four 2L plastic bottles can be recycled into one t-shirt, filling for a ski jacket and two ball caps.
- The United Nations Environment Programme (UNEP) estimates that an average North American uses 100kg of plastics annually. They predict this figure will increase to 140kg by 2015.

For additional information, contact the **RCBC Recycling Hotline**
 604-732-9235 (Lower Mainland) | 1-800-667-4321 (province-wide)
 Monday through Friday, 9:00am-4:00pm | www.rcbc.bc.ca

