

Why can't all plastics be recycled?

Plastic has become prevalent because it is inexpensive and it can be engineered with a wide range of properties. Plastics are strong but lightweight, somewhat resistant to being degraded by chemicals, sunlight, and bacteria, and are thermally and electrically insulating.



What does the symbol mean? A chasing arrows symbol, or resin code, does not mean that a plastic container is recyclable. Most plastic containers are marked with the chasing arrows symbol - number one through seven in the center. The number inside the arrows signifies the main chemical compound used to make that plastic container. Unfortunately, the symbol does not mean that plastic container can be recycled.



There are seven resin codes used inside the chasing arrow symbols:

1. **PETE** Polyethylene Terephthalate is in pop and water bottles. Please recycle.
2. **HDPE** High Density Polyethylene is opaque and usually in bottles that store laundry detergent and milk. These are usually recyclable.
3. **V** Polyvinyl Chloride (PVC) is found in plastic pipes, shrink wrap.
4. **LDPE** Low Density Polyethylene is in produce bags, plastic wrap, and plastic bags.
5. **PP** Polypropylene is used for yogurt tubs, ketchup bottles.
6. **PS** Polystyrene is found in Styrofoam, used for egg crates.
7. **Other** This category covers a vast mixture of resins and includes food containers (clam shells), polycarbonate used in sport bottles, and bio-based plastic used in compostable food containers.



Why don't we recycle all these plastics? Most cities collect #1 and #2 types of plastic, or the plastic bottles made from PETE/PET and HDPE resin. These bottles are made in a blow-molding process. The other types of plastics, #3 through #7 are made with an injection molding or stamp molding process and involve additives. Plymouth does not collect these plastics, which require different processing to recycle, and a different end market. The markets for #1 and #2 plastics (bottles) are stable and numerous. The markets for the other plastics are infrequent and not consistent at this time. It is cheaper and easier for those markets to begin with new plastic than to gather enough of the type (right color, without additives, no ink, and so on) than to use recycled plastic. Often the #3 through #7 plastics end up collected at the curb and have to be removed at the recycling facility, which is costly, and disposed of elsewhere. It is much easier and cheaper if the residents reuse these containers or dispose of them properly.

How you can help: Flatten your plastic bottles to help prevent litter and saves space in the recycling truck.

You can also help by

- ♻️ using reusable containers,
- ♻️ choosing products with less packaging,
- ♻️ buying in bulk,
- ♻️ purchasing products with post-consumer recycled materials; and by
- ♻️ placing only #1 and #2 plastics (bottles) in your recycling bins with the other recyclable materials.

Information is from U.S. Environmental Protection Agency, the Ecology Center, Environmental Literacy, Eureka Recycling, Hennepin County and the City of Plymouth.

