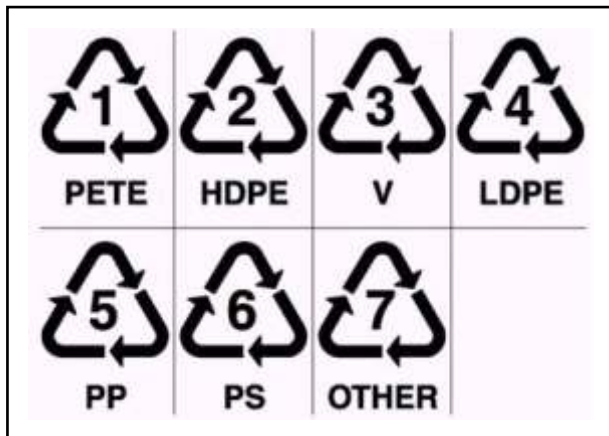


Plastic Recycling - Know your Resin ID's

Knowing the Resin ID (triangle numbers) and what they stand for are pivotal when recycling. Putting the wrong kind of plastic in the recycling bin could mean inefficient recycling. Knowing the different kinds of plastic and how they are recycled makes the recycling process more streamlined. Resin ID 1 - 6 can all be placed in your plastic recycling for finer sorting by your recycler, however items identified by ID 7 are generally consigned to waste sites.



The second triangle, HDPE stands for High Density Polyethylene. This means it is a slightly hard kind of plastic.

Properties: toughness, strength, stiffness, ease of forming, ease of processing, resistance to moisture and chemicals, permeability to gas.

Description: Bottles made from HDPE come in both pigmented and unpigmented resins. The unpigmented resin is translucent. It also has good stiffness and barrier properties. Thus, it is ideal for packaging products having a short shelf-life such as milk. HDPE's good chemical resistance allows it to be used in containers holding household or industrial chemicals. The pigmented resin has even better crack resistance and chemical resistance than the unpigmented resin.

Packaging applications: Milk containers, juice bottles, water bottles, bleach, detergent, and shampoo bottles, trash bags, grocery and retail carrying bags, motor oil bottles, butter and margarine tubs, household cleaner bottles, yogurt containers, and cereal box liners.

Recycled products: Drainage pipe, liquid laundry detergent bottles, oil bottles, pens, benches, doghouses, recycling containers, floor tile, picnic tables, fencing, lumber, and mailbox posts.

PETE or sometimes known as PET is Polyethylene terephthalate. This is the first triangle symbol and also the most common.

Properties: toughness, strength, heat resistance, barrier to moisture and gas. The easiest plastic to recycle.

Description: PET, also referred to as polyester, is a popular packaging material for food and non-food products because it is inexpensive, lightweight, re-sealable, shatter-resistant and recyclable. PET is clear and has good moisture and gas barrier properties. Its color may be green. The flakes and pellets of cleaned post consumer recycled PET are in heavy demand for use in spinning carpet yarns and for producing fiberfill and geotextiles.

Packaging applications: Soft drink bottles, water bottles, beer bottles, mouthwash bottles, peanut butter containers, salad dressing containers, juice bottles, vegetable oil bottles.

Recycled products: Fiber, tote bags, new PETE containers for both food and non-food products, fabric for clothing, athletic shoes, luggage, upholstery, furniture, carpet, fiberfill for sleeping bags and winter coats, industrial strapping, sheet, and film, and automotive parts, such as luggage racks, headliners, fuse boxes, bumpers, grilles and door panels.



Triangle 3 is PVC -Polyvinyl chloride or sometimes known as V -vinyl, are often known seen as the worst plastic created by man.

Properties: toughness, strength, ease of blending, ease of processing, resistance to grease, oil, and chemicals, clarity.

Description: Vinyl, or polyvinylchloride, has stable electrical and physical properties. It has excellent chemical resistance and good weatherability. Its flow characteristics make it well-suited for injection molding.

Packaging applications: Window cleaner bottles, cooking oil bottles, detergent bottles, shampoo bottles, clear food packaging, wire and cable jacketing, medical tubing, with additional significant usage in household products and building materials, particularly siding, piping, and windows.

Recycled products: Binders, decking, paneling, mudflaps, roadway gutters, flooring, cables, speed bumps, and mats.



Cape Environmental Assessment Practitioners (Pty) Ltd

Plastic Recycling - Know your Resin ID's



LDPE -Low density polyethylene is the fourth triangle in the series. Complete opposite to HDPE, LDPE is a very cheap plastic, but also very difficult to recycle.

Properties: toughness, strength, flexibility, ease of sealing, ease of processing, barrier to moisture.

Description: Because of its toughness, flexibility, and transparency, LDPE is commonly used in applications where heat sealing is necessary. It is also widely used in wire and cable insulation and jacketing.

Packaging applications: Squeezable bottles, bread bags, frozen food bags, tote bags, clothing, furniture, dry cleaning bags, and carpet.

Recycled products: Film and sheet, loor tile, garbage can liners, shipping envelopes, furniture, compost bins, paneling, trash cans, lumber, landscaping ties.



Resin ID number six, PS -polystyrene. These are the packaging masters of the plastic world. Polystyrene takes many years to degrade naturally but it can be easily reused and recycled.

Properties: ease of forming, clarity, low heat transfer, good thermal insulation.

Description: Polystyrene can be made into rigid or foamed products. It has a relatively low melting point.

Packaging applications: Plates, cups, cutlery, meat trays, egg cartons, carry-out containers, aspirin bottles, compact disc jackets.

Recycled products: Thermal insulation, light switch plates, egg cartons, vents, rulers, foam packing, carry-out containers.



Triangle five is PP or polypropylene. This is a very hard and very durable plastic.

Properties: toughness, strength, resistance to heat, grease, oil, and chemicals, barrier to moisture.

Description: Polypropylene has the lowest density of the resins used in packaging. It is strong and is resistant to chemicals. Since it has a high melting-point it can be utilized in applications requiring that a container be filled with a hot liquid.

Packaging applications: Yogurt containers, syrup bottles, ketchup bottles, caps, straws, medicine bottles.

Recycled products: Signal lights, battery cables, brooms, brushes, auto battery cases, ice scrapers, landscape borders, bicycle racks, rakes, bins, pallets, and trays.



Other -the worst plastic there is. These are identified with the number 7 or nothing at all. Recyclers do not generally accept any plastics with the Resin ID number seven.

Properties: varies according to constituent resins

Description: The category of "Other" includes any resin not specifically numbered 1, 2, 3, 4, 5, or 6, or combinations of one or more of these resins.

Packaging applications: Three and five gallon water bottles, certain food product bottles. Also includes nylon zippers, nylon stockings, fibreglass, acrylic and car headlight lenses.

Recycled products: Plastic lumber, custom-made products



Cape Environmental Assessment Practitioners (Pty) Ltd

Information sourced from Health24.com, About.com Environmental Issues and earthodyssey.com.