

Recycling

Defining Recycling

Recycling is the process of recovering material from waste and turning it into new products. The original product is destroyed (usually through a melting process) but is typically used to form something new. The recycled material is added to virgin materials at an OEM-defined level of acceptance or let-down ration, usually 5%.



In 1988, the Society of the Plastics Industry (SPI), now known as the Plastics Industry Association (PLASTICS), created the Resin Identification Code (RIC) system. This system was developed to provide a consistent national program to help sorting line workers identify post-consumer packaging types using the six basic packaging resin classes.

Recycling Codes

PET/PETE

Examples include clear water and drink bottles, food jars, hinged food containers, and cosmetics. Curbside recycling is available.

HDPE

Examples include AG pipe, natural gas pipe, detergent, antifreeze, milk, juice bottles, pails, and containers. Curbside recycling is available.

PVC

Examples include siding, flooring, hose, tubing, plumbing, window frames, and wire insulation. Not available for curbside recycling.

LDPE

Examples include clear water and drink bottles, food jars, hinged food containers, and cosmetics. Curbside recycling is available.

PP

Examples include auto, commercial, and industrial parts; caps, containers, tapes, microwaves, and hinged containers. Curbside recycling is available.

PS

Examples include trays, disposable drink cups and plates, food containers, toys, and cutlery. Curbside recycling is available.

OTHER (PC/ACRYLIC/NYLONS)

Examples include auto parts, riot face shields, impact windows, helmets, water cooler bottles, and safety glasses. Not available for curbside recycling.

Common Recycling Definitions

Industrial Recycling

The reprocessing of materials from finished products and post-processing stages. Often includes post-industrial content of compounds.

Melt Filtration

A process involving extrusion with fine screens and filters to remove all non-meltable contaminants such as wood, metal, and paper.

Natural Recycling

The decomposition of organic materials in nature.

Non-Recyclables

Items that cannot be accepted in recycling for plastics, such as food waste, metals, ceramics, and others.

Post-Consumer

Plastic items that have been used in their intended application.

Reclaimer

An organization that converts post-consumer and industrial plastics into raw material for use.

Secondary MRF

A facility that takes low volume and value materials from primary MRFs for further separation.

Washed Flake

Flakes that are washed to remove contamination using either hot or cold systems.

Ballistic Separator

A machine that separates materials based on physical characteristics such as size and weight.

Optical Sorting

A process that uses lasers and cameras to sort and identify materials, helping to increase output.

Bioplastics

Plastics made from all or partially plant-based materials.

Material Recovery Facility (MRF)

A sorting facility that removes and cleans contaminants for further processing.

Mixed Waste Facility

A facility that accepts both municipal solid waste and mixed recyclable materials.

Non-Biodegradable

Materials that will not decompose in any composting process.

Plastics Recycling Facility

A facility that accepts only mixed plastic items, removes contamination, and separates polymers for reprocessing.

Post-Industrial

Plastic materials generated in a manufacturing process that are not considered end-use products.

Recovery

The process of taking recyclable materials out of a landfill to put into a recycling system.

Upcycling

The process of taking a product and using it for a purpose other than its intended use.

Adhesive Residual

Residue remaining after the washing process, typically from adhesives used on containers and films.

Elutriation

A system that uses gravity and air separation to lift flake and remove fines and other contaminants.

Biodegradable Plastic

Materials that degrade in natural specialized environments, such as commercially controlled composting facilities, but will not degrade in standard landfills.

These cannot be mixed into other plastics recycling streams as they then become contaminants.