

4 PET bottle recycling technology

Technology to produce high-grade recycled PET resin and recycle products

Collection and recycling to make diverse products

Under the 3R policy (Reduce, Reuse, Recycle), Japan has been collecting PET bottles, food trays, and cans separately for reuse as recycle resources in the manufacturing of new products. PET bottles are collected in accordance with the Act on the Promotion of Sorted Collection and Recycling Containers and Packaging, and they are used to make a variety of textile products, etc. Relatively high-grade PET bottles are collected and remade into PET bottles or carpets with the high technology possessed by Japan.

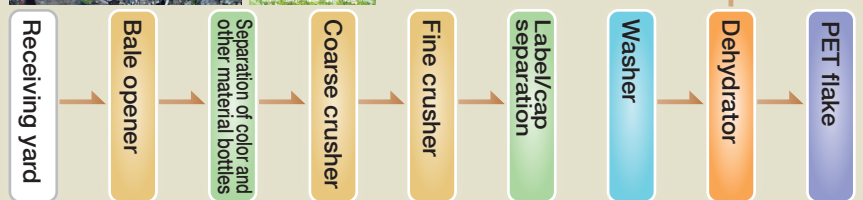
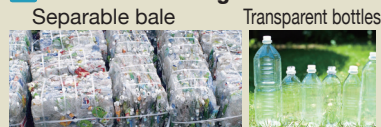
Collection of PET bottles and handing them over to reproduction contractors

The collected bottles are cleaned, and caps and labels taken off to improve their quality. The bottles are then compressed, bound and passed on to reproduction contractors.

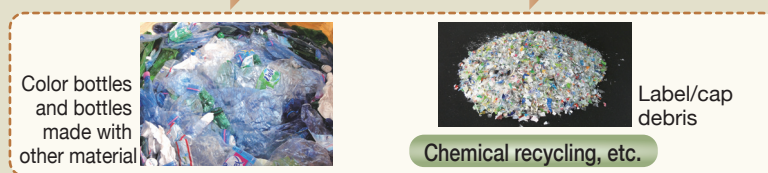


Source: The Council for PET Bottle Recycling

Removal of foreign matters from PET bottles



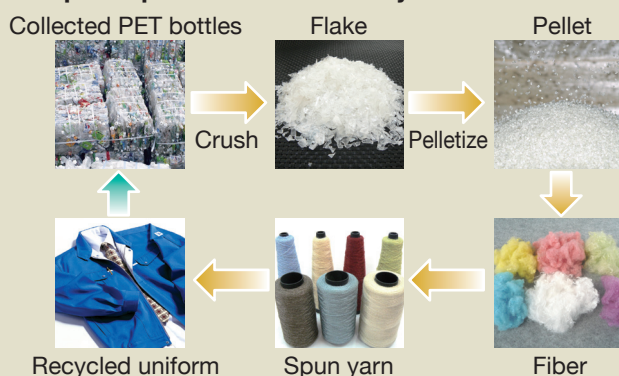
Valued transparent PET resin is sorted and extracted for raw resin. Residual plastic is used for chemical recycling. Water discharged during processing is purified to prevent water pollution.



Recycled products

- (1) Textiles : Suits, shirts, carpets, etc.
- (2) Bottles : Bottles for detergents, cosmetic containers, etc.
- (3) Sheets : Paper packs and cases, partitions in boxes, etc.
- (4) Other : Stationery, containers, etc.

Examples of products made from recycled PET resin



Examples of material recycling (PET bottle)

Many products are made from flakes and pellets. They are used to make PET sheets, resin products or remade into PET bottles.



Cotton work gloves and bags

Source: The Council for PET Bottle Recycling