COLLECTION SYSTEMS

Post-cosumer waste schemes

PET BOTTLES 1 COLLECTION

DEPOSIT

Bottles sold with refundable deposits, redeemable upon return of the bottle. This system guarantees high return rates with very low contamination levels.

DROP-OFF

Collection and disposal of recyclables at specific locations.
This sytem implicates high contamination levels.

KERBSIDE

Collection of waste directly from households. Citizens seperate recyclable materials in specific refusal bags.

DID YOU KNOW ?

The best quality recyclates are obtained from waste with low contamination rates.

Contamination in PET bottles waste stream includes paper, metal and food residues.

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PET BOTTLES

SORTING 2

SORTING

Bottles are unbaled and sorted according to colours and materials.

DESIGN FOR RECYCLING

Larger labels or sleeves decrease the detectable surface of PET bottles. This prevents PET package from being detected, leading to material loses.

CONTAMINANTS SEPARATION

Metal parts are removed. This step is critical for the protection of blades during the grinding process.

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PET BOTTLES
GRINDING & WASHING
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GRINDING

PET bottles are ground during a dry or wet operation. Further separation will rely on the resulting size and shape of ground flakes.

DESIGN FOR RECYCLING

PE labels float and are separated in the swim-sink tank from PET which sinks.

Other plastic lables which do not float will hinder the quality of the recyclate. PVC, paper and metallised labels are known to negatively impact the quality of recycling.

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WASHING & RINSING

Flakes are washed in high-temperature water with a chemical cleaning agent to remove any residue, dirt and glue. Afterwards, flakes are rinsed to prevent carrying over of the cleaning agent to the next step.

FLOTATION

Flakes are placed in a water-bath where PET sinks while HDPE and PP float.

PET BOTTLES
FLAKE SORTING & EXTRUSION

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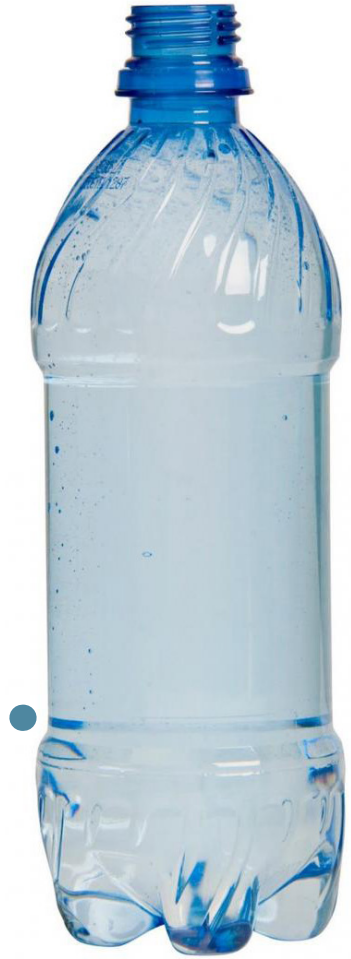
FLAKE SORTING
Flakes can be sorted according to colour.

EXTRUSION
Flakes are then melted and extruded into a final product.



FINAL PRODUCT
Recycled PET can be used for production of new bottles, other food packaging or fibers.

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