

KERBSIDE RECYCLING MATERIALS SPECIFICATIONS



PET
Polyethylene
Terephthalate

Kerbside Plastics



Kerbside PET



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Baled Post Consumer PET Bottle Specification

- Purpose of Specification
 - Uniform composition
 - Consistent quality
 - Clean material



Baled Post Consumer PET Bottle Specification

- Objective of the Specification
 - Acceptable quality
 - Prohibited materials
 - Tolerated materials
 - Logistics arrangements
 - Auditing bale quality



Baled Post Consumer PET Bottle Specification

- Quality Indicators
 - <3 months outdoor storage
 - 600kg maximum bale weight
 - 1.5m maximum bale width
 - Uniform bale dimensions in shipment
 - Enclosed bale transport
 - Minimal levels prohibited materials



Baled Post Consumer PET Bottle Specification

- Prohibited materials
 - PVC
 - Other polymers SG>1.00
 - Polystyrene
 - Barrier bottles
 - Aluminium cans/closures/caps
 - Steel cans/metal shapes
 - Glass containers/fragments



Baled Post Consumer PET Bottle Specification

- Prohibited materials
 - Sand/glass in bottles
 - Full/partially full bottles
 - Hyperdermic syringes
 - Oil/lubricant/cooking oil bottles
 - Household chemical bottles
 - Heavy metal pigments/water soluble inks
 - Dirt/mud/concrete/stones



Baled Post Consumer PET Bottle Specification

- Allowable materials
 - Non-soluble pressure sensitive labels
 - Bottles containing minor residues
 - Other polymers $SG < 1.00$



Baled Post Consumer PET Bottle Specification

<u>Contaminant</u>	<u>Max.Level</u>
PVC	<0.10%
Prohibited materials	<0.15%
Allowable materials	<0.15%
HDPE/LDPE	<0.30%
Total Contaminants	<0.30%
Coloured PET	<0.20%

Baled Post Consumer PET Bottle Specification

- Bale Standards
 - Uniform size
 - Free from damage
 - Wire-bound/strapped
 - Stacked on edge
 - Straps to side
 - <250kg 3-5 straps
 - >250kg 5-10 straps



Baled Post Consumer PET Bottle Specification

- Auditing Procedure
 - Visual inspection
 - Contaminated bales quarantined
 - Automated detection equipment
 - Contaminated bales weighed/tested



PET Bottle Manufacture Recyclability Considerations

- The Recycling Process - Food Grade
 - Kerbside collection
 - Sorting at MRF
 - ***Non-PET items removed***
 - Washed & flaked
 - Solid state / sterilisation
 - Dried
 - Extruded / Pelletised
 - PET pre-forms manufactured
 - PET containers blown
 - PET containers filled



PET Bottle Manufacture Recyclability Considerations

- The Recycling Process - Fibre Grade
 - Kerbside collection
 - Sorting at MRF
 - Washed & flaked
 - Dried
 - Extruded / Pelletised
 - Spun into fibre
 - Blended with other fibres
 - Textile manufacture





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PET Bottle Manufacture Recyclability Considerations

- Labels - compatible
 - Polypropylene
 - High Density Polyethylene
 - Low Density Polyethylene
 - Paper?
 - PET?



PET Bottle Manufacture Recyclability Considerations

- Labels - incompatible
 - Orientated Polystyrene
 - PVC
 - Metallic Impregnated
 - Wet Strength Paper



PET Bottle Manufacture Recyclability Considerations

- Adhesives
 - Heat softenable
 - Water soluble
 - Standard hot metal adhesive
 - Pressure sensitive adhesive



PET Bottle Manufacture Recyclability Considerations

- Tamper-proof seals
 - PVC
 - PET



PET Bottle Manufacture Recyclability Considerations

- Inks used on labels/seals
 - UV-curable inks
 - HAPS (Hazardous Aromatic Printing Solvents)
 - Water soluble inks



PET Bottle Manufacture Recyclability Considerations

- Handles
 - PET
 - Non-PET SG<1.00
 - ABS/OPS/PVC



PET Bottle Manufacture Recyclability Considerations

- Closures
 - Polypropylene
 - High Density Polyethylene
 - Low Density Polyethylene
 - EVA
 - Aluminium
 - PVC
 - Metal inserts



PET Bottle Manufacture Recyclability Considerations

- Household Chemical Bottles
 - Citronella/Turps/Kero/Metho
 - Suitable for fibre production only
 - Distinctive shape/colour/label



KERBSIDE RECYCLING MATERIALS SPECIFICATIONS



HDPE
High Density
Polyethylene

HDPE Milk Bottles



Baled Post Consumer HDPE Bottle Specification

- Purpose of Specification
 - Uniform composition
 - Consistent quality
 - Clean material



Baled Post Consumer HDPE Bottle Specification

- Objective of the Specification
 - Acceptable quality
 - Prohibited materials
 - Tolerated materials



Baled Post Consumer HDPE Bottle Specification

<u>Contaminant</u>	<u>Max.Level</u>
PVC labels/seals	<0.01%
LPB/paper/cardboard	<0.01%
Long-life milk bottles	<0.01%
Plastic bags/films	<0.01%
Steel/aluminium cans	<0.15%
Non-sol.press.sens.labels	NIL%
Coloured HDPE	<1.50%

HDPE Container Manufacture Recyclability Considerations

- The Recycling Process
 - Kerbside collection
 - Sorting at MRF
 - Non-HDPE items removed
 - Coloured HDPE separated
 - Flaking & washing
 - Drying
 - Flake sorting
 - Extrusion
 - Pelletising



HDPE Container Manufacture Recyclability Considerations

- Labels: compatible
 - Rip'nRecycle
 - PET
 - OPS
 - Clear HDPE



HDPE Container Manufacture Recyclability Considerations

- Labels: non-compatible
 - PVC
 - Polypropylene
 - LDPE
 - Metallic impregnated
 - Wet-strength paper
 - Paper



HDPE Container Manufacture Recyclability Considerations

- Adhesives
 - Water soluble
 - Standard hot metal adhesive
 - Pressure sensitive adhesive



HDPE Container Manufacture Recyclability Considerations

- Inks used on labels/seals
 - Water soluble inks



HDPE Container Manufacture Recyclability Considerations

- Closures/Tamper-proof seals
 - PVC tamper-proof seals -NO
 - PET tamper-proof seals
 - Polypropylene closures
 - HDPE closures
 - LDPE closures
 - Aluminium closures/seals – NO
 - Metal inserts - NO



HDPE Container Manufacture Recyclability Considerations

- Household Chemical Bottles
 - Citronella/Turps/Kero/Metho
 - Suitable for non-food only
 - Distinctive shape/colour/label

