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Specifications for baled coloured and thermoformed polyethylene terephthalate (PET)

These generic specifications are for separating translucent coloured PET bottles and clear thermoform trays for the purposes of making coloured recycled PET (rPET) flake or pellets to US and EU standards in Australia.

These specifications are voluntary and have been prepared to assist Australian primary sorters, such as Material Recovery Facilities (MRFs), by providing recommendations for sorting, storage and transport.

It is acknowledged that some MRFs and sorters will be able to meet these various specifications and send high quality bales (with low contamination) direct to plastics reprocessors/compounders, and others will need to send their baled plastics to other sites for further sorting. Companies sending baled plastics for further sorting may send substantially more mixed plastics than included in these specifications. All MRFs and other sorters should seek details from their customers on their specific requirements.

These specifications have developed in consultation with experts in the sector based on national and international trends on markets, price, quality, equipment and processes. We acknowledge Plastics Recyclers Europe for the generic template, specifications from The Netherlands, and the contribution of MRF operators, plastics processors and other industry experts in helping prepare this generic specification.

Two streams of rigid PET

There are two common streams of rigid PET packaging that have different physical properties and hence different value in the Australian and global markets. These specifications are geared to coloured PET bottles and thermoformed PET.

These specifications cover:

* Coloured PET that may be used for non-food packaging applications i.e., household chemical bottles e.g., turpentine etc.
* Thermoformed PET trays, clam shells and punnets.

For [clear uncoloured PET bottles](https://anzpacplasticspact.org.au/wp-content/uploads/2021/06/Specifications-for-baled-clear-PET-bottles.docx) refer to the other specifications within this series.

PET packaging design

For PET packaging design the following resources are available:

* [Quickstart Guide to Designing for Recyclability: PET Packaging](https://documents.packagingcovenant.org.au/public-documents/Quickstart%20Guide%20-%20Designing%20for%20Recyclability;%20PET%20Packaging)
* [Action Plan for Problematic and Unnecessary Single-Use Plastic Packaging](https://documents.packagingcovenant.org.au/public-documents/Action%20Plan%20for%20Problematic%20and%20Unnecessary%20Single-Use%20Plastic%20Packaging)
* [Sustainable Packaging Guidelines](https://documents.packagingcovenant.org.au/public-documents/Sustainable%20Packaging%20Guidelines%20(SPGs))

Specifications for baled coloured and thermoformed polyethylene terephthalate (PET)

Instruction: Enter responses into the middle column as appropriate to your operations, outputs and customers. Strike out any characteristics and descriptions that are not relevant.

|  |  |
| --- | --- |
| Supplier information | |
| Company name |  |
| Company address |  |
| Additional sorting information |  |
| Date |  |

|  |  |  |
| --- | --- | --- |
| Specifications for baled coloured and thermoformed polyethylene terephthalate (PET) | | |
|  | Enter data in this column | Good practice / description of options for responses |
| Characteristics | |  |
| Resin |  | PET (translucent coloured bottles and thermoform). |
| Product |  | Used, completely empty, rigid bottles <5L including lids, caps, labels (unless agreed with the customer). |
| Original source of material |  | Post-consumer municipal kerbside.  Container deposit schemes. Commercial sources. Pre-consumer industrial. |
| Suitable applications |  | Food grade PET packaging. Non-food grade applications. |
| Colour | \_\_\_\_% mixed coloured;  \_\_\_\_% black articles/layers | Any colour.  No opaques (solid colours).  If you are able to specify the % black and the % coloured do so. |
| PET content  (min %) |  | If sending to an Australian secondary sorter aim for >90% PET by weight or as negotiated.  If sending direct to an Australian compounder aim for 98-99% PET or as negotiated. |
| Impurities | |  |
| Total impurities content  (max %) |  | If sending direct to a plastics reprocessor/compounder aim for 98% PET.  For other sorters aim for >90% bottle PET with **<10%** contamination. Unless otherwise specified, the % limits listed below apply to bales being sent to other sorters. |
| Metals  (max %) |  | Metallic and mineral impurities with an item weight of >100g and cartridges for sealants are not permitted.  Other metal articles <0.5% by weight. |
| Paper/Cardboard (max %) |  | < 0.5% by weight if sending to compounders.  < 1% by weight if sending to other sorters. |
| PVC  (max %) |  | < 0.5% by weight if sending to compounders.  < 1% by weight if sending to other sorters. |
| Plastic films |  | <1% by weight. |
| Other plastics  (max %) |  | <8% (incl HDPE, PP, LDPE as lids or other packaging). |
| Moisture  (max %) |  | <5% (residue food, liquids, soil, other). |
| Prohibited impurities |  | Organics, rubber, wood, hazardous waste, medical waste, glass, compostable, oxo and bio-degradable materials, food contamination, silicone, PET-G, C-PET, PS, textiles. |
| Transport | |  |
| Transport/contract documents |  | The documents will be provided with the delivered bales. |
| Tracking |  | Delivery docket stating source, sorting plant, production date. |
| Truck load  (min, tonne) |  | Tarpaulin truck 17-22 tonne load. Compacted consistent weight/size bales per delivery, ideally sized for pallets, double stacked across truck tray. |
| Bale characterisations | | Stable and stackable bales. |
| Bale size/weight |  | Compacted to 350 kg - 650 kg.  Bottles perforated or lids removed.  Stable and stackable bales for greater compaction and stability for transport and handling. |
| Storage |  | Dry storage on concrete hardstand (no gravel included in bales).  Other, please describe. |
| Strapping |  | 4 - 10 straps and not cross-bound or broken. |

Disclaimer

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