



POST-CONSUMER PVC BOTTLES BALE SPECIFICATIONS FOR RECYCLATE FEEDSTOCK

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1. Purpose

To ensure an efficient conversion of post- consumer Poly Vinyl Chloride (PVC) bottles to cryogenically ground powder which is suitable for use by Australian Vinyls and their customers, it requires fillers and recyclers to share a common understanding regarding post-consumer PVC bottles recycling. These specifications are designed to provide fillers and recyclers with information about the standards and qualities of post- consumer PVC bottle bales.

The post- consumer PVC bale is classified into three categories, including:

- Target quality;
- Down- gradable quality; and,
- Reject quality.

This specification document is a benchmark for buyers and suppliers within the Australian recycling industry. ACOR welcomes feedback on all specifications at any time to ensure they reflect the current industry best practice. Individual buyers and sellers can use it as a workbook or a reference for trading and negotiation. It is not compulsory for buyers and sellers to comply with the standards. However, buyers and sellers are strongly encouraged to work together and reach an agreement regarding terms and conditions.

2. Plastic Identification Code for Polymers

The plastic identification code is a series of symbols that assist product designers, manufacturing and recycling industries, government agencies and consumers to identify the types of polymers used in the manufacture of the product or packaging. The symbols are normally embossed on the bottom of the plastic containers and bottles, or at the back of packages.

The voluntary Plastic Code ('the Code') was created by the Plastics and Chemicals Industry Association (PACIA) in 1990. The coding system consists of seven symbols (see table below). ACOR supports the use of the Code, however one issue with the current code and its artwork is that consumers may confuse the use of the code as disposal instructions.

The identification coding symbol for PVC is number 3 inserted in a triangle and clearly embossed on the base of the bottle.

for Coding Industry Polymers	Symbol	Polymer	Applications
		Polyethylene Terephthalate (PET)	Beverage bottles, food containers, sheeting applications (e.g. cake and sandwich trays), textile fabrics and garment fibres, etc.
		High Density Polyethylene (HDPE)	Bottle caps, 'singlet' shopping bags, freezer bags, household chemical bottles or containers, milk jags, etc.
		Plasticized (PPVC) or Unplasticised (UPVC) Polyvinyl Chloride	Plumbing pipes, garden hoses, blister packs, label, seals, etc.
		Low Density Polyethylene (LDPE)	Garbage bags and bins, recycling bins, bottle closure, bottle labels, etc.
		Polypropylene (PP)	Drinking straws, microwave ovenware, plastic hinged lunch boxes, bottle closures, household chemical containers, labels, etc.
		Polystyrene or Expanded Polystyrene (PS)	Yoghurt containers, plastic cutlery, foam hot drink cups, etc.
		---	All other resins and multi-blended plastic materials that are not listed from the above.

3. Prohibited Materials

The prohibited materials for post- consumer PVC bottles include:

- Aluminium cans or caps,
- Glass fragments,
- Steel cans,
- Dirt, grit, mud or stones; and,
- Hypodermic syringes.

4. PVC Bale

4.1. Target Quality

- Clean and/ or clear Vinyl bottles.
- Less than 2 months outdoor exposure with no visible ‘sunburn’ or browning.
- Moisture content: 0% or minimal presence.
- Bale quality:
 - Bale weight: less than 200kg
 - Less than 5 visible PET and/ or HDPE bottles on the outside of the bale
- Contaminants:
 - No more than two pieces of prohibited materials
 - No hypodermic syringes contained
 - Minimal food residue

4.2. Downgradable Quality

- Low level of colouring in the bale.
- Outdoor exposure: less than 10% of bottles are ‘sunburnt’ or brown.
- Moisture content: high levels.
- Bale quality
 - Less than 10 visible PET, coloured PVC, PET and HDPE bottles on the outside of the bale.
- Contaminants
 - No more than five pieces of prohibited materials (see section 3—Prohibited materials).
 - No hypodermic syringes contained.

Note: If bale is deemed downgradable, price penalty will be incurred on a case- by- case basis.

4.3. Reject Quality

Bale that does not fulfil the target quality and downgradable quality are deemed rejected.

5. Substandard Quality

These specifications apply to all post- consumer PVC bottle bales. Recyclers are strongly encouraged to work with their suppliers to ensure any deterioration in quality standards is communicated and opportunities for improvement are identified and agreed upon.