



PVC Recycling

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Progress in PVC Recycling

- Introduction to the Aust PVC market
- “Vinyl Cycle” PVC recycling program
- PVC bottle bale specification



The PVC Industry in Australia

- PVC is the second most widely used plastic in the world
- Total PVC market in Australia is approx. 200,000 tonnes
- Predominant use for PVC is in building and construction



80% of PVC products have a life expectancy of 15-100yrs





10% of PVC products have a life expectancy of 2-15 yrs





Only 10% of PVC is used in products with a life expectancy of less than 1 year. 6% is packaging.





The Vinyl Cycle - Background

- Part of the Vinyl Bottle Industry's action plan to the National Packaging Covenant
- Signatories are AVC and Plaspak-Peteron
- Key supporters are Cadbury Schweppes, Cryo Grind Aust., Armstrong World Industries, Independent Plastics

The Vinyl Cycle – how it works

- Collection of baled, clear PVC bottles
- Granulation
- Washing
- Drying
- Cryogenic grinding
- Current end use applications are flooring and pipe fittings
- Increased supply would allow use in pipes





The Vinyl Cycle – current status

- PVC Bottle Market – 3600T
- 5% were collected and reprocessed in 2000
- Target to achieve and sustain >50% recycled
- More than 49% of bottles are now recovered in 2004/05
- Of these, 13% are processed via the Vinyl Cycle and the balance are processed offshore – all into long-life PVC applications
- 89% of households have access to PVC collection



Issues and Challenges!

- Combat the reluctance of MRF's and sorting facilities to positively sort PVC
- Continue to work with councils to ensure that PVC is designated for collection
- Continue to work the industry, educators and the community in general to increase awareness that PVC is recyclable and that there is a strong market for the end product



Examples of PVC bottles





PVC Specification

- Quality targets largely based on presence of other plastics, moisture, food, dirt, foreign bodies and light degradation
- Other plastics – PET, PE, PP not as big an issue as for other plastic recycling
- Key issue is “sunburn” – light degradation
- 3 levels – target quality, downgradable quality, and reject quality



PVC Specification

- Downgradable quality incurs a price penalty, determined on a case by case basis, but our Contractor is committed to working with suppliers to avoid this being necessary

- Prohibited materials:
 - Glass fragments
 - Steel cans
 - Aluminium cans
 - Dirt, grit, mud or stones
 - Hypodermic syringes



The benefits!

- Easily identified
- Increased prices – economic viability
- Reduced volume of unsorted bottles going to landfill or sold at low value
- THE ENVIRONMENT BENEFITS



Useful References:

- “Vinyl Cycle” Project Manager

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- Vinyl Council of Australia

www.vinyl.org.au

- Australian Vinyls Corporation Ltd

www.av.com.au

- Plaspak-Peteron Pty Ltd

www.peteron.com.au