GLASS PACKAGING

Introduction

This Quickstart is intended to be used in conjunction with APCO's Sustainable Packaging Guidelines (SPGs) by providing a quick high-level guide to design strategies that improve the recyclability of glass packaging. This document may be used following consideration of the recovery of packaging through the waste hierarchy, and reduction or optimisation of material use where possible.

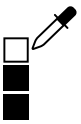
The key issues with glass recycling are that markets for broken and contaminated glass are more limited than clean colour-sorted glass for remanufacture, and that broken glass in commingled bins and trucks is generally lost and unable to be recycled.

NOTE: The Quickstart is intended to be general guidance only, and the information provided has been developed based on current knowledge at the time of publication. Some of the information may not be relevant to all packaging types; for specific guidance on individual packaging items and to classify recyclability through kerbside recycling in Australia/ New Zealand, please refer to the Packaging Recyclability Evaluation Portal (PREP) and other resources.

Tips for successful recycling

USE MONO-MATERIALS AND LIGHTWEIGHT WHERE POSSIBLE

Reduce costs and environmental impact by light weighting as much as possible without compromising product protection and safety.



MINIMISE COLOURS OR SELECT PREFERRED COLOURS

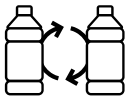
Select preferred colour of glass for recycling (see table below) based on optimum sorting and highest value.

ENSURE COMPATIBILITY OF CLOSURES FOR RECYCLING

Eliminate or minimise additional components that introduce composite materials and contaminate the stream.

ENSURE COMPATIBILITY OF LABELS FOR RECYCLING

Minimise label size to reduce material consumption, increase printing efficiency and improve recyclability.



INCORPORATE RECYCLED CONTENT

Maximise the amount of recycled content in glass where possible and explore opportunities to add recycled content to labels and closures.

INCLUDE LABELLING FOR RECYCLABILITY

Use the Australasian Recycling Label (ARL) to educate consumers on how to correctly recycle each component of the packaging.

Guide to selecting materials

COMPONENT	PREFERRED Most acceptable in glass manufacturing	RECYCLABLE WITH REDUCED VALUE Less preferred or causes issues in recycling	AVOID Not recyclable
Bottle or jar 	Clear (flint), amber (brown) or green - most desirable colours for glass manufacturing	Red, purple, blue and dark greens – more difficult to blend into colours required for glass manufacturing.	Black, dark blues, ceramics and heat treated glass – major contaminants that reduce glass quality
Labels 	Paper labels and direct (applied) printing - do not contaminate glass as during sorting they allow the glass to break down into cullet	Plastic / film, metallised inks and labels - reduces recovery as glass stays attached to the label and cannot be sorted	Large plastic /film labels or full sleeves – inhibit sorting, impact processing and cause low recovery Metal labels – major impact on processing and therefore reduce recovery rates
 Caps and closures	Steel – removed using magnets during beneficiation (then generally recycled)	Aluminium capsules, caps and tamper-evident rings, plastic caps, RFID tags, cork – contaminants in glass manufacturing, more difficult to remove during beneficiation	'Swing-top' closures with ceramic – metals and ceramic do not burn off in the glass furnace and reduce glass quality Any caps or closures that cannot be fully removed manually from the glass packaging

More information

- For a comprehensive view of the current state of EPS in Australia:
  > APCO (2019), *Glass Working Group 2018*
- To find out more information about PREP:
  > PREP Design Pty Ltd (2019), available at: *https://prep.org.au/*
- For a comprehensive guide on glass packaging:
  > SRU and Helen Lewis Research (2013), *Design smart material guide: glass packaging*
- Glass packaging design guidelines for recovery from the United States:
  > GreenBlue (2011), *Close the Loop: Design for Recovery Guidelines for Glass Packaging*
- Beverage containers that are eligible for container deposit schemes may have additional legislative requirements regarding labelling. To find out more about a state or territory Container Deposit Scheme:
  > Australian Beverages Council (2019), Container Deposit Schemes, available at:
  https://www.australianbeverages.org/initiatives-advocacy-information/container-deposit-schemes/