



# Designing for Circularity

Sustainability & The PET Bottle





# What is required to make recycling work?



Consumer Behavior



Recycling Infrastructure



Package Design



We need all three,  
and it starts with **design**.

# Amcor Rigid Packaging Believes in Responsible Packaging



**~52**

Manufacturing sites across 11+ countries in the Americas

**~6k**

employees



## We Create Packaging to:

- **Promote** brands
- **Protect** consumers & products
- **Work with Recycling**

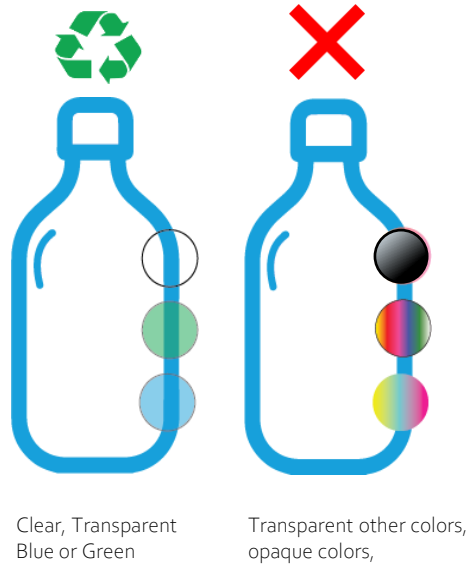


## Amcor follows APR Guidance for recycling

# The APR Design Guide for PET

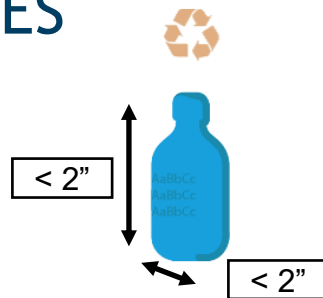
PET

## COLORS

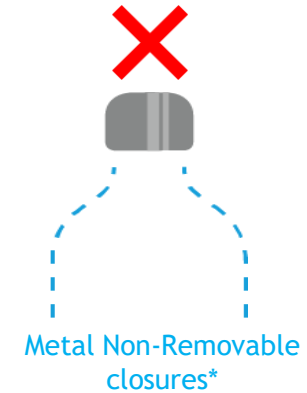
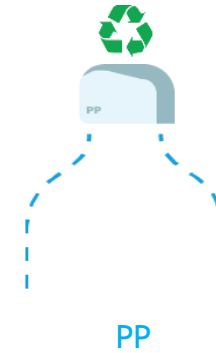


## SIZES

Small sizes with dimensions of less than 2"x2" may not be recycled. Testing can help determine recyclability.

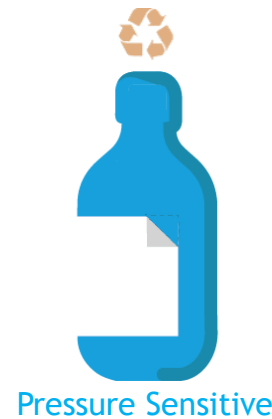


## CLOSURES



## LABELS

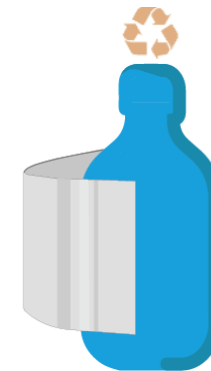
*Other Label  
Considerations*



- 1) Adhesive needs to dissolve OR label material needs to be compatible with bottle material



- 1) HDPE - fully recyclable.
- 2) PET - testing required to see if ink contaminates stream



- 1) Label needs to be removable OR label material needs to be compatible with bottle material
- 2) If >80% coverage - material needs to be compatible to bottle material and recycling process



# Malibu converts 750ml to be fully recyclable



- Opaque white PET non-recyclable due to color
- cPET shrink sleeve unlocked ability to give iconic white look, while maintaining recyclability
- Amcor created a method to anneal the PET, to withstand heat from shrink tunnel during label application

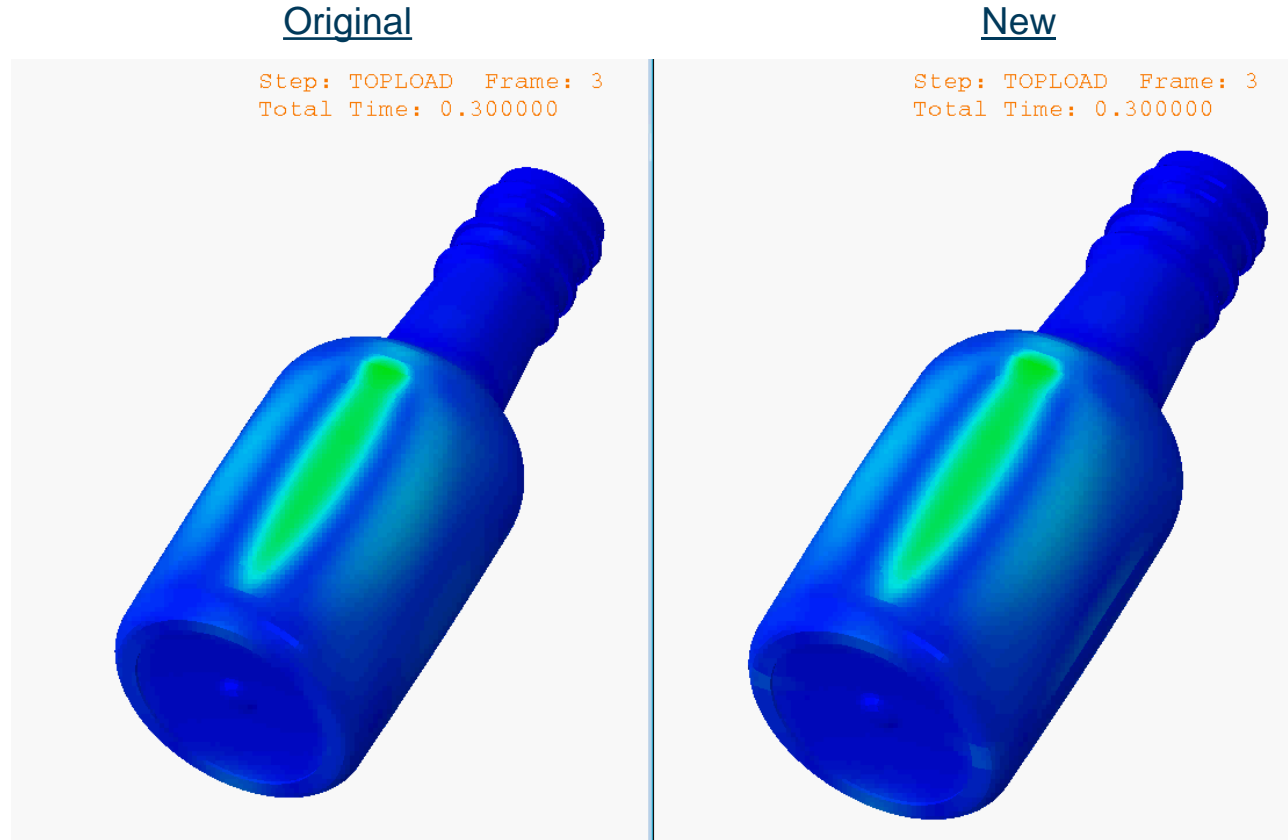
# Existing 50ml Liquor Bottles Non-Compatible with Current Sortation Equipment



- Hundreds of millions of 50ml PET bottles are produced every year that are deemed non-recyclable
- Bottles slip through broken glass screens at material recovery facilities making them unable to sort into PET stream
- Bottles need to be greater than 2", on 2 sides, to allow for proper sortation

# Amcor redesigning 50ml to fit existing sortation & maintain brand identities

- Recycled materials are squeezed by truck during collection
- New concept designed to 'crush' to extend diameter greater than 2"
- Modeling used to analyze various designs to achieve preferred result
- Bottle testing has shown bottle moves from non-recyclable to recyclable but needs improvement





# Designing for Recycling is a must, but there's more to do



## Consumer Education

PET is 100% Recyclable and can be made from 100% recycled content.

90% of the PET in the U.S. that goes into the recycling bin is recycled.

A PET package properly recycled can be back in a consumer's hand is just six weeks.

## Well Designed EPR Legislation

Increase recovery, Reduce Cost, Incorporate cost of recycling into cost of the product, Improve design of the products

- Strong environmental outcomes
- Efficient, cost-effective, transparent and accountable
- Shared financial responsibility
- Convenient for consumers
- Long-term financial sustainability

### Bottle Deposit System

- MIT study: Nationwide program could increase the recycling rate to 82%.
- Reduce roadside litter by as much as 64%.

## Access to Recycling

73% of US households have access to recycling

### Indiana Access:

- 79% single family households
- 11% multi-family
- 45% Curbside; 34% Drop-off

Just 17% of recyclable content is collected in Indiana.

- National Average: 21%