



Case Study

# Maximising Returnable Glass Bottle investment with DivoBrite™ Defend

Your returnable bottle fleet represents a significant investment to your business. Bottle to bottle abrasion in the bottling line followed by caustic etching in the bottle washer leaves glass bottles scuffed and unattractive. The more trips the bottles are circulated on, the more the appearance deteriorates, leading to a cost-appearance trade off, damaging either your bottom line or your brand image.

## Challenge

A large beverage bottling plant in Mexico was facing issues with the degradation of ACL bottle labels during the glass washing process. The degradation of the label print was limiting bottle life to ~30 cycles before the quality of the bottle negatively impacted brand image.

The customer wanted to increase the number of cycles without damaging the high brand standards.

## Results

### ANNUAL COMPARISON:

*Implementing Diversey DivoBrite Defend resulted in:*



**>50%**  
bottle life  
extension



**\$129,390**  
bottle investment  
saving



**690 ton**  
reduction  
in CO<sub>2</sub>



**42%**  
less chemical  
additive

## Solution

BottleCare, the returnable glass bottle protection program from Diversey was implemented to improve the appearance of returned bottles, without impacting customer satisfaction and maximising the return on investment in the bottle fleet.

In this instance Diversey DivoBrite Defend, a bottle washing additive that has been specifically developed to deliver cleaning power equivalent to the most corrosive detergents in the market, whilst protecting glass, was implemented as a replacement to the existing additive.

## Results

Challenge testing was carried out to measure the impact of Diversey DivoBrite Defend vs the incumbent bottle washing additive on the label print over 50 washing cycles.

Using a photographic method the CMYK colour tone of the most dominant colour on the label was measured after each wash cycle. These measurements were then plotted to show the impact of the additives on the ACL print over the 50 cycles.

The results showed that during the first 15 cycles the colour degradation of the ACL label for both additives is similar, however there was less wear on the bottles washed with DivoBrite Defend. After cycle 20, a greater difference is observed between the wear produced by both additives (figure 1).

When comparing the 45th cycle of the DivoBrite Defend vs the 20th cycle of incumbent additive it is observed that the colour degradation is similar, resulting in the extension of 25 cycles of useful life with DivoBrite Defend.

Discover more about the BottleCare™ Glass Protection Program at [www.diversey.com/bottlecare](http://www.diversey.com/bottlecare)

## Label Print Degradation

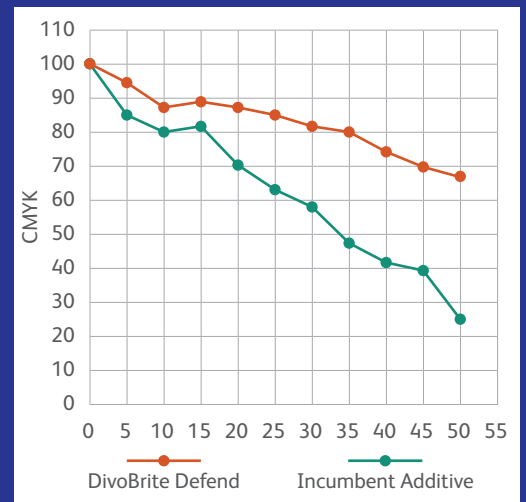


Figure 1

Metric	Result
Bottle Life Extension (number of trips)	<b>50%</b> increase (30-45)
Improved print colour retention	<b>158%</b> retention
Glass Saving	<b>\$129,390</b>
Reduction in additive consumption	<b>42%</b>
CO <sub>2</sub> Reduction	<b>690</b> tons

Figure 2