

The Coca-Cola X Bottle

By Doug McCoy © 2011

In 1942, the Coca-Cola Company conducted an experiment on Coca-Cola bottles. The goal was to prolong the life of individual bottles. A bottle had a normal life expectancy of 35 trips from the bottler to the consumer and back to the bottler. It was also hoped to eliminate scratches, scuffs, chips and cracks as well as keeping the case wear down to a minimum on the Coca-Cola trademark embossed on the bottle.

There were 5,000 cases of bottles made to be tested. The Emhart Corporation made the machinery to produce the bottles and the Laurens (S.C.) Glass Company used the machinery to make the bottles. Two thousand cases of the 5,000 went through a special process to make the bottles of tempered glass, sometimes referred to as toughened glass.

Tempered glass is a type of safety glass widely used on passenger windows, shower doors, etc. It goes through a controlled thermal process which increases the strength. It also causes the glass, when broken, to crumble into small granular chunks instead of jagged shards.

There are drawbacks to this type of glass. Tempered glass is not as hard as annealed glass (such as a normal soft drink bottle) and is more susceptible to scratching. Even after the tempering process, a scratch can cause a bottle to fracture.

Bottles that were given the tempered process could be distinguished from the non-treated bottles by posing them in front of a polarized light. This would reveal the high stress marks in the bottle. The bottles show an "X" embossed on the neck above the liquid level. The hope was to create a Coca-Cola bottle that would be safe as well as durable. The bottle could be dropped onto a concrete floor and the bottle remained intact. But, if the neck was pinched, the bottle would shatter into pieces.

The bottle proved ineffective and the Coca-Cola Company dropped the tempered experiment with packaging.

The bottle is marked BALTIMORE, MD. on the base. That was the location of the bottling plant where the tests were conducted. The skirt area has 4 L 42, the maker's mark and date code. The bottle mold as No. 4, the "L" is Laurens Glass Company and the 42 is the year the bottles were made.

Few, if any, ever made it into the public realm. But if any did, the writer would love to add one to his collection.



The distinctive "X" embossed on necks of experimental Coca-Cola bottles. (Photos by Doug McCoy)



Here's the Laurens (S.C.) Glass Works "signature" "L" and the year (1942) the "X" bottle was made. (Photos by Doug McCoy)



All of the "X" bottles' bases were embossed BALTIMORE, MD. (Photos by Doug McCoy)