

# UNDER THE THUMB

## Courtesy of: Peter Kiddell

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A call one morning from a major plastic bottle manufacturer who had 250,000 rejects returned from their main customer, fortunately they were in the UK, so it was possible to get to them the same day.

Upon arrival and after looking at the print shop it was clear that this company was in the premier league. They were screen printing onto polymer bottles at class leading speed and quality. With any situation like this a discussion with production management and the quality team is the first action, with examples of the problem to examine. They showed a series of bottles where the ink was flaking off. The consultant then went out to the storage area and viewed pallet loads of rejected bottles.

A walk around the print shop was the next action along with a discussion the with the Print Shop Manager who was harassed to say the least. Well-constructed Standard Operating Procedures were shown, and processes were checked to confirm their compliance. Everything was correct. Yet there were wagon loads of rejects being returned by the client.

The area of poor adhesion was in a similar position on every rejected bottle. Bottles came from blow moulding without being touched prior to printing in the print shop. This was not a problem caused during print.

The need was to trace the path of the bottles from print back to moulding. Automation fed the bottles onto the print machines. They were transported there in protective plastic containers that were free from contamination. A walk to blow moulding apparently showed nothing amiss. The blow moulding shop was clean and well lit. Operators had the correct PPE. They were all wearing gloves. A range of bottles were being produced. The operator on the relevant machine was working assiduously and placing the bottles into the plastic transport containers. Speed was the essence. As well as placing the bottle into the container the operator had to remove a small sliver of sprue from the neck of the bottle. He needed to be fast and accurate. On approaching up close it was possible to see that he was holding the bottle in his left hand whilst grasping a sharp bladed knife in his right hand and manipulated the knife to carefully remove the sprue. Unfortunately, he had removed material from the inside of the thumb of glove on his right hand. He had done this because it meant he got a better purchase on the bottle with his bare thumb when manipulating the knife.

His thumb placement was consistent with the break down of adhesion on the bottles.

### **Solution**

The operator was provided more flexible glove for his right hand until the tooling was fixed. That was a very expensive thumb print.

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## Result

A relieved client and a happy end customer.