

CASE STUDY - THERMOPLASTICS

A clear view on easy changeover and colour changes in thin wall production

40%
FASTER,
MORE
EFFICIENT
CLEANING

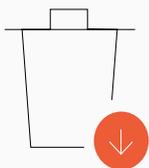


WHAT WE ACHIEVED.

Thin wall packaging products for cosmetics as well as personal and health care products are an important growing market. Typically, manufacturing is characterised by highly complex moulds with many cavities, extremely low part weight, high volume production and the necessity of multiple sometimes radical colour changes. A global player in the manufacture of thin wall packaging products, making medical eye drops dispensers, was facing severe problems resulting from such radical colour changes from black to whitish transparent virgin resin colour leading to high scrap rates and more than 2 hours of downtime during changeover times that could only be executed by the shift leaders. After thoroughly analysing the whole process, our Ultra Purge™ experts succeeded in introducing a purging process that any operator was able to successfully complete 40% faster than before and also resulting in a considerable reduction of scrap parts of roughly 35%.



35%
REDUCTION
OF SCRAP



HOW WE GOT THERE.

When the customer contacted us, he had a very clear view on his objectives. Their injection moulding process was subject to 50-80 color changes per month entailing 3-4 cleanings per week, each lasting between 120-140 minutes. Among other thin wall products, they produced medical eye drop dispenser caps - each cap weighing less than 1 gram made of polypropylene injected via a hot runner into a mould with 32 cavities. That mould was used to produce caps from both black masterbatch as well as natural virgin resin. Side by side with our customer, we were able to identify the best suitable food approved purge compound that allowed for a simple purge process any operator was able to run on his own and that also resulted in a reduction of scrap rates due to black streaks.

OUR SOLUTION.

Ultra Purge™ 1001 was found to be the purge compound of choice to optimally work with this type of equipment and materials. Screw, barrel and hot runner were purged with the food approved purge compound by producing parts after only a few minutes of soaking.



The use of Ultra Purge™ 1001 made the whole cleaning procedure 40% faster than before. The simplicity of the purge process now allowed operators to run it without the need for shift leaders to assist. The scrap rate was considerably reduced. All those benefits also resulted in an increase of the customer's product quality.



HANDPRINT IMPACT

At Chem-Trend, we pride ourselves on our long history of sustainability efforts. However, it is our effect on our customers' processes that provides the greatest impact. It goes beyond our global Footprint; it is our even wider Handprint.

Here, we achieved the following:

- Reduction of material waste due to lowered scrap and more efficient production