

CASE STUDY - THERMOPLASTICS

Lusin® MC1718 eliminates buildup in injection molding.



BEFORE CLEANING: Part contamination by mold residues



DURING CLEANING: Heavily contaminated part pulled from mold after application of Lusin® MC1718

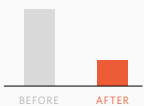


AFTER CLEANING: Part after mold cleaning with Lusin® MC1718

30%
REDUCTION IN
MAINTENANCE
COST



60-70%
REDUCTION
OF REFURBISH-
MENT CYCLES/
YEAR



11%
REDUCTION OF
SCRAP PARTS



WHAT WE ACHIEVED.

A custom injection molder producing heavy, surface sensitive white parts considerably reduced costs and saved time simply by changing their mold cleaning solution. Due to heavy buildup of residues in the mold cavities, careful and labor-intensive refurbishing was necessary every two weeks, which effectively shut down production for no less than two days. In partnership with Chem-Trend, an advanced cleaning technology was tested and proven to dramatically extend the time between cleaning cycles to six weeks reducing scrap and maintenance hours, and drive production cost savings by approximately 30%.

HOW WE GOT THERE.

The manufacturer shared concerns of high scrap rates as a result of its current injection molding process for heavy and large critical surface textured white parts. Chem-Trend's regional thermoplastics experts visited the production site and observed every step of the process to identify solution-critical parameters. Parts were being produced from flame retarded PC+ABS, which

contributed to the steady build-up of polymer residues in the mold cavities. As a result, the surface of the parts appeared "spotted" and uneven in texture (see photo before cleaning) triggering not only a high scrap rate, but also but also required extensive refurbishment.

OUR SOLUTION.

Lusin® MC1718 mold cleaner was recommended and tested given its proven capability to substantially minimize buildup in the mold. The product was applied directly to the mold cavity between two cycles, and after some reacting time, polymer buildups were softened and pulled from the mold through the process of producing parts. This method not only allowed for a quick and easy cleaning without having to dismantle and handle the mold, but it also enabled the thorough cleaning of hard-to-reach areas. The new approach was proven successful and implemented into a new regular maintenance routine.

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:

- Less material scrap resulting in reduction of total waste
- Improvement of energy efficiency per produced part

