

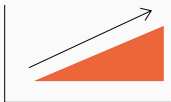
CASE STUDY - RUBBER

# Reduced mold fouling in silicone rubber seal production.

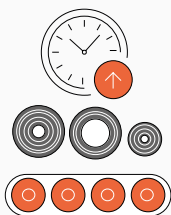
**50%**  
MORE TIME  
BETWEEN  
CLEANING  
DOWNTIMES



**34%**  
INCREASED  
PRODUCTION  
EFFICIENCY



**+35**  
HOURS/YEAR  
PRODUCTION  
UP-TIME



For more information about our rubber capabilities, our innovations, or other stories, visit CHEMTREND.COM

## WHAT WE ACHIEVED.

A large manufacturer of HCR silicone injection molding producing seals made from VMQ for a variety of industrial applications was using several release agents for different production lines. During a regular service visit to the customer, Chem-Trend's technical specialist pointed out a visible mold-fouling issue in a production line of colored silicone seals not using Chem-Trend product. The buildup on the mold was revealed to be a long standing issue with no known solution. Our rubber release expert believed Chem-Trend technology could resolve the issue and immediately suggested a trial. The customer agreed, and within a few weeks, preliminary trials were conducted with Mono-Coat® release agents specially formulated for the molding of silicone rubber parts. In those trials, parts were produced from two different silicone compounds.

Mono-Coat® was identified as the best solution to start long-term trials running for approximately two months. Following the trial period, success was clear - mold fouling issues were reduced dramatically and time between cleaning cycles were extended by 50%.

## HOW WE GOT THERE.

Thanks to the highly collaborative and trustful relationship, the customer looked to our rubber specialist for a chance to further improve their production efficiency. Our recommendation to trial multiple water-based solutions across several injection molding machines dedicated to

## 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 and energy due to the extension in the amount of time between required mold cleanings

silicone rubber seal production was met with agreement. The mold itself was characterized by a very complex geometry that only allowed for a manual brush application of the release agent. The trials demonstrated that the Mono-Coat® technology was the best performing solution to reduce the problematic mold buildup and even contributed to an increase in productivity.

## OUR SOLUTION.

The water-based Mono-Coat® release agent was found to be the best solution as it showed clearly less transfer to the mold and better release against the competitive products. Its water-based formulation provided improvements in the work environment with no VOCs being generated through its application. In addition to its effectiveness to reduce the mold fouling issue, the Mono-Coat® release agent contributed to extend the time between necessary cleaning cycles by 50%. All silicone injection molding machines are now running with the Mono-Coat® release agent and the customer has experienced an increase of 34% in production efficiency. Chem Trend's Mono-Coat® release agents can service all cure systems and mold geometries for silicone.

- Reduced energy waste through the elimination of frequent production stoppages
- Water-based release technology contributing to a clean working environment given no VOCs are generated through its use

