

CASE STUDY - RUBBER

# A next-generation rubber mold release solution that boosts productivity and output.

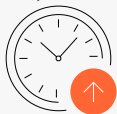
50%  
BOOST IN RELEASE  
AGENT SHELF LIFE



10%  
INCREASE IN  
PRODUCTION  
OUTPUT



300%  
EXTENSION OF  
MOLD CLEANING  
CYCLE (1 DAY TO  
4 DAYS)



## WHAT WE ACHIEVED.

A noise, vibration, and harshness (NVH) automotive part manufacturer was experiencing a range of complications due to the release agent they were employing. The origin of the issue: after four months of shelf life, the effectiveness of the product was diminishing, causing the release agent to perform inconsistently after being exposed to volatile temperatures — a common issue facing rubber manufacturers. Poor performance was also leading to more frequent daily cleanings, which were time-consuming and costly. Partnering with Chem-Trend helped the manufacturer make positive gains, increasing the time and duration between cleaning by 300%, improving overall product output by 10%, and decreasing scrap from defective parts for better part quality.

## HOW WE GOT THERE.

Together with the manufacturer's team, Chem-Trend technical specialists were able to study the total cycle of raw material and the current injection molding application process. Together, we worked to analyze the situation, identifying critical needs and issues that a release agent replacement would have to address to create more productivity with fewer delays. Leveraging our team's vast molding expertise along with additional equipment and material insight from the manufacturer, we were able to target key technologies to trial. This created an exceptionally efficient and effective validation process.

## OUR SOLUTION.

A newly developed Mono-Coat® semi-permanent release agent was tested for this application. A water-based solution, it is also PFAS-free, eliminating per- and polyfluoroalkyl substances. We believed it would bring superior stability and better process control, improving mold performance within the manufacturer's daily conditions. Introducing this next-generation solution proved to boost productivity and provide great results for the customer.



## 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 in energy consumption due to less cleaning downtime
- Less water usage due to fewer required cleanings
- Less material waste due to less frequent application of release agent



For more information about our rubber capabilities, our innovations, or other stories, visit [CHEMTREND.COM](http://CHEMTREND.COM)