

CASE STUDY - TIRES

A more predictable, more consistent tire.

Improving the outcome for a pre-cured tire manufacturer.

75%
REDUCTION
IN PRODUCTS
WITH MOLDING
DEFECTS



45%
REDUCTION
IN RELEASE
AGENT
CONSUMPTION



WHAT WE ACHIEVED.

A high percentage of molding defects leads to tremendous waste and opportunity cost for producers of pre-cured tread strips. A large manufacturer in the tire tread business was noticing a high percentage of molding defects when using a diluted silicone emulsion as a release agent on pre-cured treads. Using one of our high-performing semi-permanent mold coatings, we helped the customer to reduce their molding defects by 75% while cutting their release agent consumption nearly in half. In addition to this, the customer saw cleaner treads, which positively influenced finished tread appearance and downstream processing.

HOW WE GOT THERE.

Through a multistage process, we worked with the manufacturer to analyze the situation and identify several potential solutions. We were able to optimize the spray application system, and we subsequently trained the operators on the optimal application techniques to ensure maximum effectiveness.

OUR SOLUTION.

Unlike the diluted silicone emulsion the manufacturer was previously using, the solution we offered was ready to use and did not require any dilution or other preparation. It needed applying only a few times per day compared to their previous process, which required attention during each curing cycle. The molds stayed cleaner and remained in service for longer periods between cleaning cycles. There was minimal-to-no transfer of the mold coating to the tread surface, which greatly reduced the time needed in downstream processes to prepare the underside of the pre-cured tread.

With one change, Chem-Trend positively affected nearly every step of the process, reducing the amount of release agent used by 45% while saving time, cutting down on defects, and creating a superior finished product.



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 raw material wasted due to reduction in molding defects
- Less release agent required reduces transportation and packaging needs, positively impacting the environment
- Cleaning frequency and use of associated products reduced