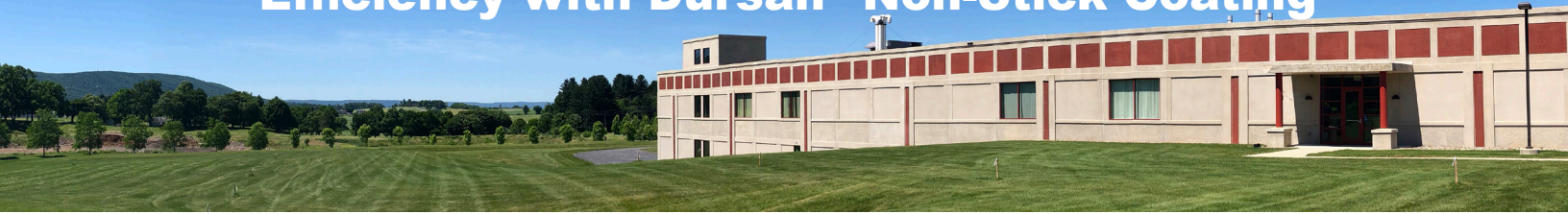


Reduce Maintenance and Improve Vacuum Pump Efficiency with Dursan® Non-Stick Coating



A SilcoTek® Case Study with:

Anonymous Materials Company

The Objective:

The customer sought a long-term solution to reduce downtime and maintenance costs caused by frequent filter clogging in a vacuum pump system. Their goal was to keep the system running efficiently while minimizing the need for repeated cleanings and preventing potential damage caused by overexertion of the pump.

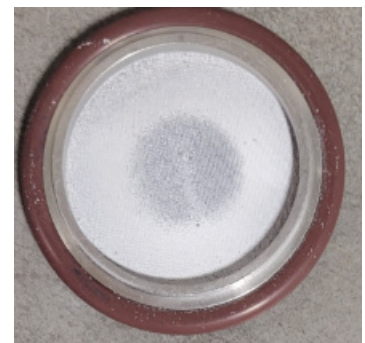
The Challenge:

The customer was experiencing recurring issues with debris buildup in a filter located between two manifolds. Over time, debris would accumulate and clog the filter, restricting flow and potentially forcing the vacuum pump to work harder than intended. This strain can increase the risk of pump inefficiency, premature wear, and potential system failure. In addition, the filter required regular cleaning, resulting in lost productivity, higher maintenance costs, and unplanned downtime.

The Solution:

To address the problem, the manifolds and filter assembly were treated with SilcoTek's Dursan® coating designed to minimize adhesion and resist buildup. The coating created an inert, chemically resistant surface that prevented debris from clinging to critical flow paths. As a result, debris that would normally collect and clog the filter now passed through without accumulating. After one year in service, the Dursan-coated system demonstrated significant improvements:

- No major debris buildup observed in the filter.
- Reduced maintenance demands, eliminating the need for frequent cleaning.
- Improved pump efficiency with less risk of overexertion and wear.



Above: Fully clogged filter without coating.

Below: Dursan-coated filter and manifolds without debris after 1 year in use.

