

Powering innovation with actionable intelligence

Umicore Technical
Materials
meets the
excellence



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Mark Gaumond, Quality Engineer,
Umicore Technical Materials



Every day, in households and businesses across the globe, people turn on lights, flip on an electric kettle, turn on a space heater, adjust a thermostat—even plug in an electric car. Umicore Technical Materials helps make those connections possible. Umicore makes the electrical contact materials that make our lights—and many other things all around us that we take for granted—work.

As the leading global provider of electrical contact materials, Umicore is committed to creating future-oriented technologies, products, and services. The company is challenged to continually innovate while maintaining the highest possible quality and efficiency to compete in the global market—not just today, but into the future. Of course, Umicore’s customers are also innovating, and so Umicore must ensure that it is a partner in those innovations.

The Challenge

This strong customer-centric focus and drive toward future-proof technologies has produced a culture of quality at Umicore. As Quality Engineer Mark Gaumond explains:

- Customers want zero defects and often require capability studies.
- Processes must be stable and meet specifications that vary from customer to customer.
- Umicore must meet strict national and international standards, including ISO 9001 and 14001; European Union (EU) Directive 2002/95/ED, Restriction of Hazardous Substances (RoHS); EU regulation Registration, Evaluation, Authorization and Restriction of Chemicals (REACH); and Conflict of Materials.

Umicore Technical Materials

Case Study

- › Automated data collection ensures precision and accuracy of measurements.
- › Self-serve charts and reports allow users to see information tailored to their needs.
- › Enhanced visibility empowers employees to be proactively engaged.
- › Real-time information enables immediate fixes, reducing waste and improving efficiency.
- › Aggregate data enables analysis of variances over time.

Welcome to the excellence loop



For Umicore, quality isn't only an external issue: It's internal as well. Mr. Gaumond notes, "We are careful to track internal complaints, customer complaints, and internal issues so that we have a historical record to inform us about trends and opportunities for improvement and prevention."

But quality never stands still. To stay ahead of the needs of future-looking customers, Umicore needed to make quality and process control even more efficient. To do that, the company turned to InfinityQS® ProFicient™.

The Solution

Before Umicore adopted ProFicient, line operators manually collected data in a spreadsheet, then converted it for use in a third-party data-analysis tool—an error-prone and time-intensive exercise. Umicore realized that automating data collection and centralizing data storage for analysis was a logical step toward higher quality.

Working with InfinityQS, Umicore implemented ProFicient on its stamping lines, where quality is essential and specific Statistical Process Control (SPC) requirements apply. The tolerances for the height of contact materials are extremely precise, and many process variables are in play. Materials that are too thick or too thin compromise the longevity of the final product in which those materials are used.

ProFicient helps ensure the critical accuracy of the stamping lines. Data collection is now automated through the plant's existing dial indicators and micrometers. Operators simply push a button on the gauge, so manual errors are eliminated and collection is streamlined. The collected data is automatically centrally stored in ProFicient's Unified Data Repository.

From there, it's easy for both operators and managers to pull up a variety of charts and reports that let them see information that's useful to them. Whether an operator is investigating an issue occurring right now, or a manager is evaluating variances over time to improve process accuracy, ProFicient gives Mr. Gaumond and the line operators at Umicore significantly improved visibility into the manufacturing processes and helps ensure any process changes are data-driven.

The Results

Mr. Gaumond says that better process visibility has allowed his team members to respond proactively, and that has improved employee engagement.

"Operators better see what they're doing because the control charts are on the screen right in front of them," he says. "So, when they notice a problem, they can stop the run immediately, fix the issue, and start the line back up, reducing waste and improving efficiency." This level of control is empowering for the operators, many of whom are now much more comfortable making corrections to improve the final product.

ProFicient has resulted in benefits for Umicore's customers, as well. Because data is stored centrally and always available, Umicore can supply customers with verification data and detailed product information at any time they need it.

The company has plans for expanding its use of ProFicient, including rolling the solution out on two additional process lines and running it over the local area network to increase the system's availability across the plant.

With ProFicient, Umicore is preparing for the power connection needs of the future.