



# Overcoming Raw Material Variability Saves Millions of Dollars

case study



“On an annual basis we’re seeing between \$2–3 million of impact on improved yield and reduction in raw materials claims. Over the time period we have used MVT®, it is worth \$18.7 million – that’s a lot of money for us!”

“We are very aggressive about how we go after success in our firm. That’s a key

reason that we drive our processes with things like MVT® (Multivariable Testing),” declared the Senior Vice President of a large manufacturer of roofing products. “We’re a multi-billion dollar company. The vast majority of our plants are running flat out, twenty-four hours a day, seven days a week, making as much product as they can possibly make.”

“We teach the QualPro basics – the statistical process control piece, measurement systems, the fundamentals of MVT® – all the way down through the floor level. We teach MVT® skills to all of our quality managers and facility managers.”

He described dealing with variation in raw materials, a constant challenge for the firm, “Many of the materials we use are not engineered materials. Sand is an example. There’s not a lot of processing going on with sand. We have a lot of raw materials to deal with and those raw materials are different from plant to plant. That material variability limits our ability to do really broad-based standardization.”

The executive described an example of his company’s MVT® results. “One supplier had what seemed to be a small increase in the variation of an important raw material. As a result, the plant could not make our product and consistently maintain its quality and performance properties. The plant management team went to the tools that they’d been taught and they completed an MVT®. With a screening and refining experiment over a period of several weeks, they were able to test numerous process variables and control settings. They identified two distinct processes for being able to use the raw material. We were able to save \$400,000 in raw material costs and meet all the requirements for product properties and quality at the same time.”

“This is not an isolated example,” he noted. “On average, each of our 20+ manufacturing plants are completing between ten and twelve QualPro projects on an annual basis. MVT® has really helped us understand the interactions between the key process variables. And that has really helped give us better process control.”

He summarized why MVT® is such a good fit for his firm. “We have a very localized process, work that has to happen without a lot of disruption, and no extra people to run around doing it. QualPro’s MVT® was a perfect choice as our method for improvement.”