

Improved Material Development for Veterinary Equipment Manufacturer

Conversion to Plastic Saved Time and Costs



A maker of veterinary diagnostic and testing equipment needed help developing a complicated product it was rolling out to the marketplace. The equipment was traditionally made with plastic and sheet metal parts. The sheet metal parts were relatively expensive to manufacture because of many intricate subcomponents and spot welding requirements.

In the new design, more than 50 additional plastic parts were added, along with the conversion of many sheet metal components to plastic. The most complex part was an internal chassis around which many of the subassemblies were attached. Converting the chassis to plastic would provide better durability, less variability and faster manufacturing time, significantly decreasing overall production costs.

Nexeo Plastics worked with the customer to identify a resin that would be moldable enough to handle the design yet structurally sound enough to support the many subcomponents. The recommended blend was a glass-and mineral-filled polyphenylene ester/styrene mix, a resin whose durability and flexibility favored the application based on its stiffness and tensile strength.

With the replacement to plastic, the manufacturer launched the testing product to the veterinary marketplace with significant savings in expenses, time and manufacturing efficiency. The company is saving more than \$770,000 annually using plastic, with the savings attributed to reduced manufacturing time, improved quality and the elimination of many secondary operations during production. The project's return on investment for the conversion project was an impressive 4.3 months.

Discover how Nexeo Plastics can help you overcome your material, process, and application challenges.

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PROJECT AT-A-GLANCE

Recorded Benefits

- Saved more than \$770,000 annually versus using sheet metal
- Realized metal-to-plastic conversion ROI in 4.3 months
- Improved quality and decreased production variability

Challenge

A veterinary testing company needed help selecting the most optimal resin to replace sheet metal in a new diagnostic testing product.

Solution

Nexeo Plastics recommended an ideal resin with the structural integrity and moldability to successfully launch the new product.

Result

Converting the design from metal to plastic saved time and money for the customer while improving product quality, returning the company's investment in fewer than five months.



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