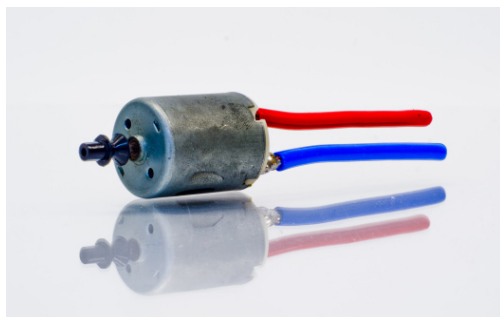


SUCCESS STORY 81

CURING COATINGS USED IN ELECTRIC MOTOR MANUFACTURING



Q

How did a manufacturer supplying the automotive market measure the paint/powder and lacquer curing processes on electric motor parts?

A

Situation and background

Electric motors are used in ever increasing numbers, particularly in the automotive industry, where long term reliability at minimum cost is the key to gaining market share. To ensure long operating life in harsh environments (temperature and humidity), the windings of the motor are lacquered and steel surfaces coated. Curing of the powder coat is fairly straight-forward, but the lacquer cure can take up to 8 hours. With temperatures ranging from 75°C/167°F to 150°C/302°F, this process can be challenging.

The winning solution

- The DataPac® Oven Tracker® XL2 system, was used for both curing processes.
- Training of the operators was minimized with data from both processes provided in one common format.
- DataPac is the industry standard for automotive, used by the majority of tier 1 manufacturers and coating material providers, giving the end-user full confidence in the solution proposed.
- Quality assurance data generated by the DataPac Oven Tracker XL2 system can be easily shared throughout the supply chain using a common software platform.

Savings made

- Cost of product field failure is high, so ensuring good coating cure quality was critical.
- Product value is high at the point of processing, so a reduction in reject rate resulted in significant cost savings for our customer.
- Using one profiling system saved time in training and data analysis, since there is no file conversion required when cross-checking information.

KEY FACTS

Customer's End Product
Electric motor parts

Max Temperature Reached
175°C/340°F

Duration of Process
Lacquer cure can be up to 8 hours long

PRODUCT AND BENEFITS



DataPac Oven Tracker XL2
TB0090 thermal barrier
Insight™ Professional
software

- Monitor all coating and curing processes with one profiling system.
- Verify lacquer cure on surface and deep buried windings (not possible with IR).
- System of choice in the auto industry.
- Software provides instant coating cure analysis.