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SURFACE WORLD LIVE
Revised dates: 24TH & 25TH
FEBRUARY 2021
NEC, Birmingham

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PAINT & POWDER

Discover what truly happens inside your Paint Cure Oven



requirement of this in the paint operation has been the need for ATEX classification of areas and zones on the paint line. A need to identify the explosive risk in key areas and therefore restriction on the type of equipment that can be used in that area brings technical challenges.

To perform a temperature profile on a solvent or water-based coating line requires that the profiling system be passed through zones / areas that are classified as potentially hazardous. To address this restriction Phoenix™ has introduced the Epsilon-x a unique intrinsically safe 10 channel profiling system. The logger is certified as Group II Category 3G for safe operation in gaseous environments defined as ATEX Zone 2.

Optical Profiling a products eye view!

Thru-process temperature profiling provides a great understanding of what temperatures the product sees travelling through the cure oven. In terms of paint quality though, in particular cosmetic finish and paint defects, this is not the complete story. The painted

car body can experience many problems that are not temperature related that can affect the quality of the cured paint. Problems such as paint runs, drips, paint or rinse entrapment or condensate contamination can only be detected post process without any specific knowledge of the root cause / location of problem.

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Over the last 40 years 'Thru-process' temperature profiling has been established as an important and standard method for proving quality assurance of the paint cure process. Monitoring the temperature of a painted automotive body shell as it passes through the series of sequential cure ovens is critical to prove that the part has been heated correctly in the oven to achieve the desired physical and cosmetic properties of the coating.

Safe Monitoring in ATEX classified areas

Over the years regulatory compliance and health and safety has become critical aspect of day to day manufacturing. One important





If only you could see a video of the car body travelling through the oven to allow identification and location of such issues.

The PhoenixTM Optic system has been developed specifically to allow such paint defect detection using Optical Profiling. Adapting the thermal barrier technology used for temperature profiling a high-resolution video camera can safely travel through the paint oven with an independent torch recording video footage of what the product sees. The system is just like your car 'Dash Cam' the only difference being that the journey is through a cure oven operating up to 200 °C. The Optic system can be mounted on a test body allowing monitoring of the exterior of a separate production body shell or potentially directly on a production body itself.

In addition to paint defect detection the Optic system can be helpful in detecting other process problems specifically relating

to the oven and conveyor system operation without physically having to access the oven. Identifying oven damage, badly adjusted ducting, faulty fans, failing jerky belt drives can allow pro-active corrective action and prevent lengthy down time and lost productivity.

**For more information:
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SURFACE WORLD LIVE



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Surface World Live is being held at the NEC in Birmingham on the 24th & 25th February 2021. We look forward to seeing you at the show!

Your industry under one roof over two days.

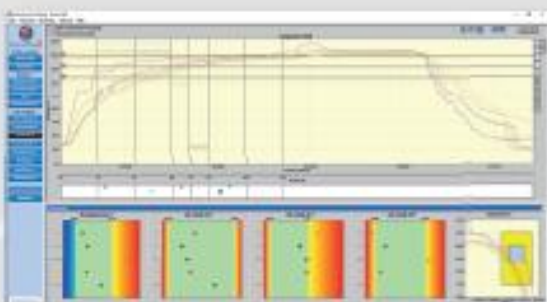


New
innovation
& safety



Phoenix™
Phoenix Temperature Measurement

ATEX Certified 'Thru-process' Oven Temperature Profiling System



Safety

- Certified for ATEX classified Zone 2 use
- Intrinsically safe Epsilon-x data logger (Group II Cat 3G)
- Ten points of measurement
- Thermal Barrier Protection (over 3.5 hours @ 200 °C)
- Custom designed range of thermocouples
- Regulatory compliant monitoring



Value

- Performance and robust operation at an affordable price
- Silicone Free, User replaceable batteries plus much more
- Thermocouples with replaceable sensors - lower consumable costs!

✓ Monitor
✓ Control
✓ Improve
✓ Certify

Simplicity

- Easy to interpret PASS/FAIL graphical cure
- Paint cure QA reports shared easily and efficiently
- Local technical support, service and ISO17025 calibration - quick help if you need it

...where experience & safety counts!



Cert: ExVeritas 19 ATEX 0472X

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