

UNIQUE PAINT PROCESS SYSTEM

PHOENIX™

Painting a complete picture of your coating process!

Phoenix™ has developed a unique new Paint Process monitoring system, allowing for the first time, not only the traditional temperature profiling of the product temperature through the oven but also optical profiling of the products journey.

The newly developed TS64 thermal barrier permits in a single barrier the facility to both protect the Phoenix™ data logger and also the Phoenix™ Optic system (video camera with independent illumination) with a thermal performance of 3 hours at 200 °C. The thermal barrier, incorporating a specially designed heat sink, can be adapted to allow either temperature profiling or optical profiling runs to be performed. Although it is most likely that the different monitoring operations will be best performed sequentially due to different set-up / mounting requirement the system can be used to perform simultaneous product temperature monitoring and optical profiling in a single pass through the oven if required. For the first time ever, you can potentially not only determine oven temperature uniformity problems from the temperature profile graph but complement this data with video evidence from inside the oven as to the possible root cause of the temperature problem. With a single system you can not only highlight hot and cold spots from the temperature data, which may affect the quality of the paint cure, but quickly and efficiently identify the physical oven fault causing the problem. Use the Optic system to discover oven problems such as faulty fans, blocked ducting or even damage to the internal oven structure or insulation.

The Phoenix™ Optic system allows thru-process paint defect detection using Optical Profiling. The 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.



Phoenix™ TS64 Optic system. Thermal barrier is shown configured with a PTM1220 20 channel data logger and finishing thermocouples, including the new compact MiniMag magnetic thermocouple.



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During the journey through the oven the painted car body can experience many problems that are not temperature related that can affect the quality of the cured paint. Employing the Optic system, problems such as paint sags or curtains, paint or rinse entrapment or condensate contamination can be detected and sources identified, allowing informed corrective action strategies to be reached.

Complementing the monitoring system is the PTM1520 Epsilon-x a unique intrinsically safe 20 channel data logger. The PTM1520 is certified against the ATEX European standards as Group II category for safe operation in gaseous and dust environments

(ATEX Zone 2 and 22 respectively) allowing safe operation of automotive paint and powder coating applications. Choose from magnetic thermocouples for traditional steel or clamp thermocouples for Aluminium. New to the Phoenix™ thermocouple range is the MiniMag thermocouple designed to fit in the tightest of spaces extending your monitoring capabilities. The Thermal View Finishing software allows paint process conclusions and actions to be made quickly but with confidence. Including the new Phoenix Factor index of cure analysis tool, accurate cure confirmation against paint supplier specifications for all your different coatings is now possible. The final profile report gives you the comprehensive certified monitoring record to allow fully traceable validation of your paint operation.

Whether temperature or optical monitoring Phoenix™ your Finishing Oven to find, fix and forget those paint cure problems.

For more information: Contact Dr Steve Offley - Product Marketing Manager;

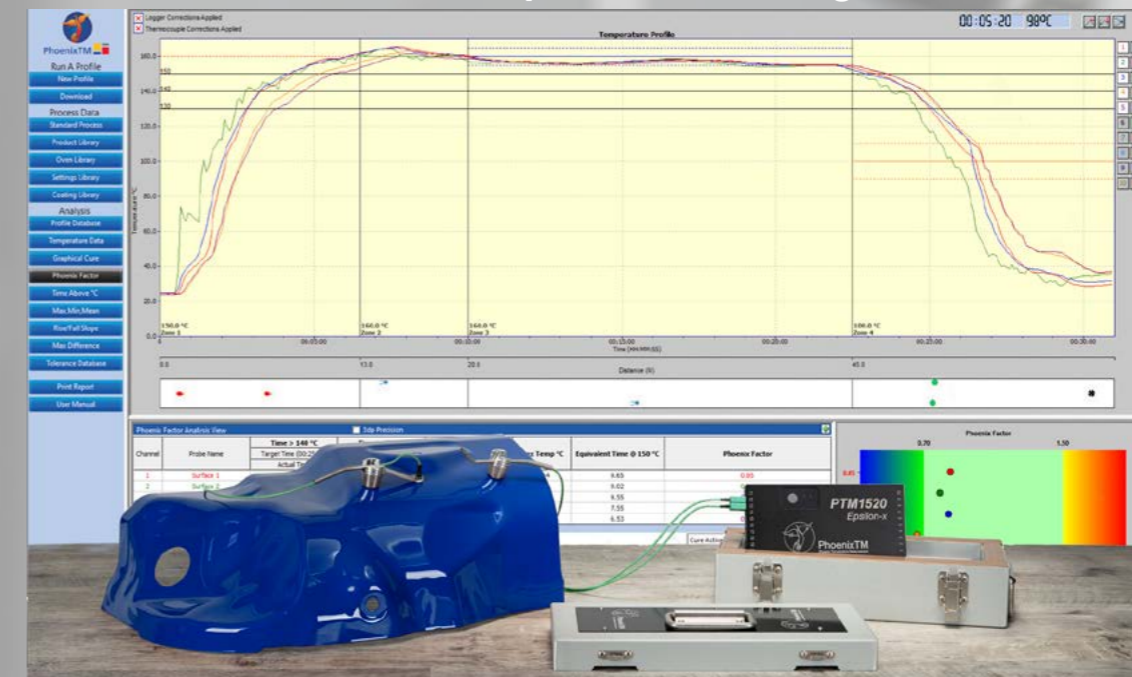
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Phoenix™
Phoenix Temperature Measurement

Innovation in Thru-Process Automotive Paint Monitoring

Safe ATEX Certified Temperature Profiling



New Optic Video Profiling System



Intrinsically Safe

- 20 measurement channels
- Paint & Powder coating
- Includes Phoenix Factor cure index calculation



During Production

- Detect paint runs, drips and defects
- Spot transport problems
- Identify oven damage