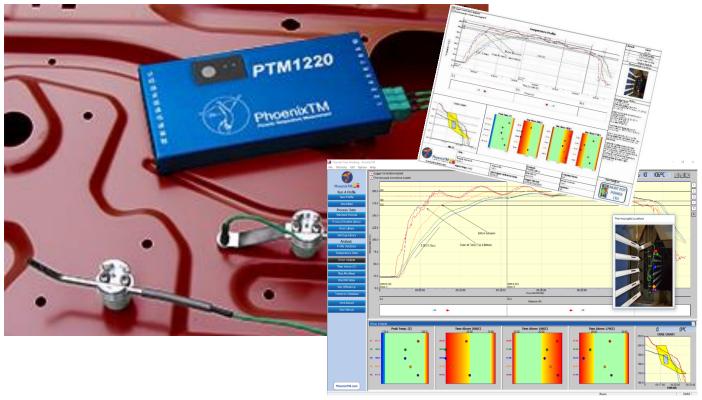
## Thermal View and Thermal View Finishing Analysis Software



PhoenixTM 'Thermal View Finishing' is a powerful, comprehensive yet easy to use software package designed specifically for the PhoenixTM Compact and Finishing 'Thru-process' Temperature Profiling systems. The software has been developed to allow not only control of the data logger but also permit the detailed review, analysis and reporting of the thermal cure profile. Features supplied in the software program have been developed to allow the user to accurately determine that the paint or powder coating is achieving the correct cure to provide the required physical and cosmetic properties. The software takes raw temperature data and coverts it to useful information that allows understanding, control, optimization and validation of the cure process.

The key fundamentals of the software design are:

• **Simplicity**: Screen layout is clear, concise, and intuitive making the software user friendly, uncluttered and easy to use without compromise to the analysis detail available.

Clarity: Graphical analysis tools allow efficient accurate process Pass/Fail identification. Detailed report
options allow quick clear communication of profile information to customers or quality auditors
alike.

When data is downloaded from the logger, the results are automatically saved in a database which can be organised in a logical manner for easy access to historical process data. Process templates can be constructed for each profile run. With a simple click, all saved Oven settings (Zones & Set-points), Product information (Probe locations on product image) and fixed Cure analysis settings (Time @ Temperature or Cure Chart) can be attached to the profile. The Thermal View Finishing software comes with a unique graphical cure analysis function allowing instantaneous identification of cure performance against Time @ Temperature thresholds. To complement the profile data the user can add additional notes either on the profile pointing out profile features of interest or in the notes section which may allow complementary QA test data to be added. Customized report options allow the user to select the optimal format to present profile findings which can be printed directly or saved as a PDF which can be shared efficiently (via e-mail) to any interested parties.



## **Key Screens & Functions**

Feature List comparing basic Thermal View Software (TV) & Thermal View Finishing Software (TV Finishing)

| Feature                                    | TV | TV        | Benefit   |
|--|----|-----------|---|
|  |    | Finishing |   |
| Full Logger Programming Options            | •  | •         | Set-up data logger to meet conditions of profile run (Probes, Sample Interval, Start mode etc etc)                                    |
| USB Real Time Analysis                     | •  | •         | Analyse live real time data directly from the logger (Comms Cable)  |
| RF & BT Real Time Analysis                 |    | •         | Analyse live real time data directly from the logger (RF & Blue Tooth)  |
| Temperature Data                           | •  | •         | Scroll across the profile and view data by each reading   |
| Time Above Temperature                     | •  | •         | Calculate Time @ Temperature against paint supplier specification   |
| Max, Min, Mean Temperature                 | •  | •         | Measure Max, Min Mean temperature by oven zone or custom zone   |
| Rise & Fall Slope                          | •  | •         | Confirm that powder melt or solvent flash off is correct for cosmetic finish  |
| Maximum Difference                         |    | •         | Prove temperature uniformity over product/oven (Car body left/Right)  |
| Tolerance Curve                            |    | •         | Instantly check that the profile shape is constant against ideal shape  |
| Reference Profile                          | •  | •         | Compare historic data to see how the process has changed over time  |
| On Screen Notes                            | •  | •         | Describe what the profile is showing directly on the graph  |
| Graphical Cure (Time @ Temp)               |    | •         | Quick simple identification of Cure compliance from Graphic Pass/Fail   |
| Graphical Cure (Cure Chart)                |    | •         | Comprehensive Time @ Temp analysis vs Digital Paint Supplier Cure Chart   |
| Zooming Options (Full, Profile, Custom)    | •  | •         | Select the area of the profile you wish to focus on   |
| Database Management Tool                   | •  | •         | Set-up unique databases to archive profile runs by process or product   |
| Merge Profile Data                         |    | •         | Combine two profiles from two systems to a single profile report  |
| Process Template Files                     |    | •         | Create template files to describe the parameters for all your different processes. Use to make routine profiling quick and efficient. |
| Product Library Files                      | •  | •         | Show exactly where probes are located on products for clarity   |
| Product Library File + Cure Analysis       |    | •         | Store Paint Cure analysis parameters to remove need for repeated parameter input run after run.                                       |
| Oven Library Files                         |    | •         | Build a visual representation of the oven against which the profile is displayed. Identify location of cold spots in the actual oven. |
| Oven Settings Library Files                |    | •         | Compare profile trace to actual oven set-point temperatures in each zone  |
| Auto Language Change Option                | •  | •         | Change language in SW to allow use by multi-cultural teams  |
| On Screen Help                             | •  | •         | Help direct in the software where you need it   |
| Logger on Board Calibration Cert           | •  | •         | View and Print Logger Calibration Certificate direct from logger  |
| Graph Display Options                      | •  | •         | View the profile graph in the format you prefer   |
| Thermocouple Alignment Function            | •  | •         | Correct for probe location differences so that time references are equal  |
| Data Import and Export (CSV)               | •  | •         | Share data between different systems (Profilers/Systems)  |
| Password Security                          |    | •         | Protect your files from tampering or accidental deletion  |
| Import from PTM Mobile Format              | •  | •         | Read data files collected on the PhoenixTM Mobile App   |
| Print Report Options                       | •  | •         | Customize report format to exact needs (Graph, 1 page or Full Report)   |
| Customer Report - Company Logo             | •  | •         | Customize reports to include full company information including logo  |
| Thermocouple and Logger Correction Factors |    | •         | For important TUS work apply both logger and thermocouple correction factors to maximize accuracy of the profile data.                |

Note: All Products are continually improved, specifications may be changed without prior notice. Ref: PhoenixTM\_Datasheet\_SW45\_10.2\_UK 20190913

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