

Elcometer 215 Temperature Data Recorder



Elcometer 215 Temperature Data Recorder

At a glance

- *Oven temperature recorder for either batch ovens, static ovens or in line conveyor ovens.*
- *Suitable for wet coating or powder coating process.*
- *Gauge can be used with or without software.*
- *Immediate results displayed on LCD - including cure index, maximum temperature & graphical representation for each probe.*

Elcometer 215 Temperature Data Recorder

The Elcometer 215 is an easy to use oven temperature data recorder which can be used to measure and record the oven temperature profile.

Logging both the product's surface and the air temperature in a cure oven, the Elcometer 215 identifies the "Temperature Profile" and so provides the User with sufficient information to ensure the consistent quality of your coating process.

Suitable for powder coating cure ovens, wet coating cure ovens, batch ovens and conveyor ovens, the Elcometer 215's measurements, analysis levels and report options (fully customisable) generate tailor-made information about the curing processes.

The data logger is fitted with a large display for easy menu-driven operation and an immediate display of the measurement results.

- Maximise productivity
- Minimise energy costs
- No more rejects or rework
- Optimise finishing quality
- Document and prove your process is in control according to Qualicoat[®], GSB[®], ISO 9000, QIB[®], etc.

Oven Temperature Data Recorders

Once a product has been powder coated to the required thickness, it must pass through an oven. During this baking (or stoving) process the powder melts, flows, gels and finally chemically reacts and cures. It is critical to the coating's final performance and appearance that both the temperature and the time at temperature parameters are controlled.

It is imperative not only to ensure there are no hot or cold spots within the oven, but also that the temperature of the product being coated is sufficient to meet the technical specifications of the powder coating. Failure to maintain the correct temperature profile can cause problems in the final performance and durability of the coating.

Variation of the oven temperature profile between production batches may lead to changes in the final coating's gloss, adhesion and colour. This can greatly affect the product's quality and therefore could be the difference between success and failure.

Data logger features include:

- Optional add-on to convert the 6 channel data logger into a 12-channel system for more accurate temperature profiling
- Large display for easy menu-driven operation. Simply follow the instructions on the display.
- Menus in five languages: English, French, German, Italian and Spanish.
- Five different data-evaluation methods.
- Displays the results of every stored batch, including Cure-index.
- Standard AA-batteries guarantee many hours of continuous operation.
- Extended memory stores 10 batches of 25,000 measurements each.

Additional logger features for detailed results:

- Start and stop logging at a pre-set time and date.
- Start and stop logging at a pre-set temperature.
- Programmable (via PC) for up to 15 paint-types, for accurate calculation of the Cure-index.
- If a paint-type is not available in the library, it can be entered in the logger (1 type per batch).
- Variable measurement interval, date, time, C°/F°

Simple 3-step operation for basic features:

1. Connect the probes to the product and switch the logger “on”.
2. Place the logger in the box and send it through the oven.
3. Read the results from the display or send them to a printer or PC.

FLEXIBLE EVALUATION OF DATA

Quick display

The logger display shows maximum temperature and Cure-Index figure, percentage and pass/fail sign, or graphic representation for each probe.

Wireless print

The optional portable infrared printer can print a brief report which includes: Cure-index, maximum temperature and graphs for immediate information review.

Logger to printer

A complete, full-colour report can be printed directly to any HP-DeskJet printer using the optional printer-link. No computer required!

Extensive analysis

For extensive analysis, comprehensive calculations and fully customisable reports every system is supplied with powerful “Ideal Finish” data analysis software.

IDEAL FINISH SOFTWARE AND THE ELCOMETER 215 OVEN-LOGGER

- The Elcometer 215 Oven-Logger is supplied with Ideal Finish Software and has been designed specifically for the powder cure and paint cure process. Special options make it possible to evaluate every part of the cure process and quickly judge the oven performance
- Important information such as thermostat settings, track speed, type of paint, client data etc, can be added to print a complete quality report
- The ‘SMART-option’ in the Ideal Finish software allows the User to insert the individual cure specifications of the powder supplier.
- The Elcometer 215 will inform you immediately after the process if the paint is sufficiently cured or if the cure process has failed.
- Saves on rework costs
- Improves Quality
- Connect to an IR Printer – for immediate results

A WIDE RANGE OF TEMPERATURE PROBES ARE AVAILABLE

All Elcometer 215 probes have been especially designed to guarantee accurate readings:

- Perfect probe-surface contact
- Low mass and optimised shape to avoid influence on temperature behaviour
- Cable with easy to clean Teflon outer shield, highly flexible due to the twisted cable cores and extremely strong due to the braided metal mesh armour.

Magnetic surface probe

This probe is fitted with an ultra strong magnet but still has a very low mass and size. The actual sensor is thermally isolated from the magnet in order not to affect the part's temperature. This sensor is suited for use on round parts, such as tubes.

Clamp-type surface probe

Small and elegant surface probe for any type of material. Silver tipped sensor is thermally isolated from the clamp by ceramics isolator.

Ring-type surface probe

Universal probe with aluminium ring at the tip for fast response.

Air Temperature probes

Available with either clamp or magnet.

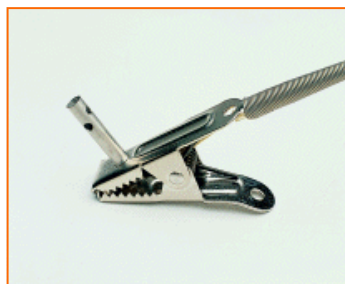
Probe-cable

Most of our standard probes are quipped with our special probe-cable. This cable is easy to clean due to the Teflon outer shield.

Each logger comes with a set of metal probe-tags to help the User match each probes with its assigned channels.



Magnetic Surface Probe

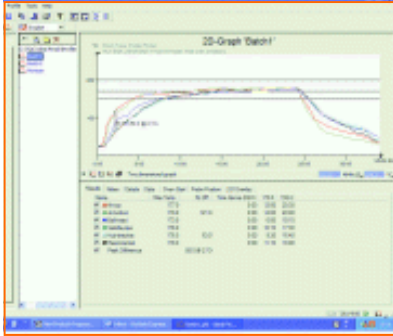


Air Temperature Probe

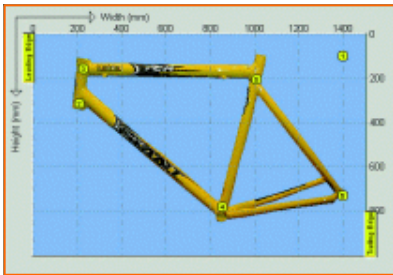


Surface Temperature Probe

Elcometer 215 Ideal Finish Software



View graphical representation of the oven temperature profile, displaying any selection of probe temperatures

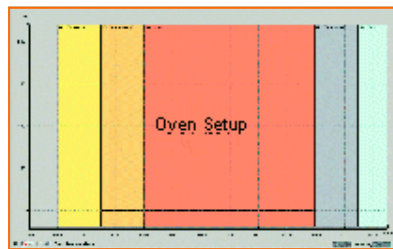


Insert a picture of your product. The probe position is calculated automatically

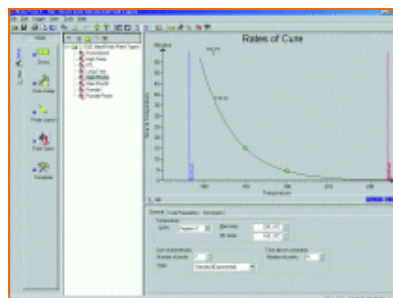
Elcometer 215 Ideal Finish Software
Ideal Finish Software, supplied with the Elcometer 215 allows line operators to print customised reports.

Calculation functions and enhanced process files help you to make the correct decision, such as changing line speed or oven temperature.

Ideal Finish is the most advanced temperature monitoring software package available. With two user levels, “Basic” and “Advanced”, Ideal Finish is an inexhaustible resource for both new and advanced Users.



Create and store oven settings



Create your own library of paint types

Oven Temperature Data Recorders

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At a glance

- Simple & yet powerful temperature monitoring software for your oven temperature analysis.
- Two user levels - basic & advanced.
- Wide range of functionality.

Accuracy:	± 1.0°C (0-300°C), ± 3°C (>300°C) ± 2.0°F (0-570°F), ± 5°F (>570°F)	Memory:	254,000 readings
Resolution:	0.1°C (0.2°F)	Measuring intervals:	2 seconds to 1 hour, user selectable
Temperature Range:	-50 to 1200°C (-58 to 2190°F)	Power Supply	3 x AA batteries
Operating temperature:	0°C to 60°C	Dimensions (Logger)	105 x 86 x 30mm (4.1 x 3.4 x 1.2")
Probe Type	K Type Thermocouple	Number of Channels	6 (or 12 with expansion unit)
Probe range:	-50 to 300°C (-58 - 572°F)	Weight	300g (10.6oz)
Indicators	LCD display 126 x 64 pixels	Printing Output	infra red (HPSIR) or direct (PCL3)
Cable	2.5mm stereo jack to sub-D9	Data Output	RS 232 at 115,200 baud

Model	Description	Part Number
Elcometer 215	Elcometer 215 Oven-Logger complete with Ideal Finish Software	G215----1
Accessories	1.5m Surface Probe	T21513852
	1.5m Ring Type Surface Probe - fast response	T21518555
	1.5m Air Probe	T21513853
	1.5 m Magnetic Surface Probe	T21513854
	3m Surface Probe	T21513855
	3m Ring Type Surface Probe - fast response	T21518557
	3m Magnetic Surface Probe	T21513856
	Logger to PC Interface Cable	T21518566
	PCL3 Printer-Link Converter with Cable	T99918561
	IR Printer	X99913877
	Steel box, lid and gasket	T21513859
	Gasket – Small 255 x 205mm	T21513862
	Heat Absorber	T21513861
	Ideal Finish Software	T21513863
	Additional Data Logger	T21513866
	6 Channel expansion unit	T21518559
	6 Channel expansion unit heat absorber	T21518560

Related products



Elcometer 215
temperature probes

All Elcometer 215 probes have been especially designed to guarantee accurate readings by having perfect probe-surface contact, low mass and optimised shape to avoid influence on temperature behaviour. The cables are supplied with easy to clean teflon outer shield and are both highly flexible - due to the twisted cable cores, and extremely strong due to the braided metal mesh armour.



Elcometer 214L

The Elcometer 214L infrared thermometer with laser pointer is compact, lightweight and easy to use. Simply aim, pull the trigger and display the surface temperature of the object being measured. Release the trigger to hold the reading. Instant temperature readings and non-contact.

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