### temp-gard *pro*

#### **Oven Temperature Recorder**

The temp-gard temperature recorder systems measure and save object and air temperature during the cure process. Documentation and analysis of temperature profiles is made easy with the included temp-chart software.

BYK-Gardner offers a complete line of oven recorders, which allow you to control and optimize your baking process – independent of paint system or measurement points.

#### **Small Logger, Big Display**

The large color LCD display allows setting the measurement parameters directly on the logger and the temperature profile of all connected probes is displayed on the screen. Two standard AA Alkaline batteries ensure a long battery life. USB interfaces provide quick and easy data transfer to the PC. The certified high accuracy guarantees long-term reliable results.

# Thermal Barrier with Perfect Design

The high-performance thermal barrier is compact and light weight with magnetically attached cooling elements. The thermal characteristics were designed with a temperature buffer to be safe for all common coatings – waterborne, solventborne or powder - up to 2 hours at 250°C. The robust stainless steel housing is easy to clean and its rounded corners provides ergonomic handling.













### **Temperature Probes for Any Application**

- High quality thermocouple type "K" with special limits of error 1.1 °C or 0.4 % (ANSI MC 96.1)
- Magnets or clamps do not influence measurement results
- Connection cable of 1.5 m (59 in), 3 m (118 in) and 8 m (315 in) length available (see table)
- Response time for 100 % measuring range from 5 seconds to 2.5 minutes depending on probe style
- Can be used as replacement probes for other datalogger brands

#### temp-chart pro

# **Professional Documentation and Analysis of your Curing Process**

temp-chart *pro* is an easy-to-use software for documentation and analysis of the temperature profile. temp-chart was developed in close cooperation with leading automotive manufacturers.

To analyze the curing data measured with temp-gard, temp-chart will merge the temperature data with oven parameters and analysis criteria to generate a temperature profile. Data will be stored in a database for professional documentation and easy access. The oven process can be optimized with means of the BYK-Gardner Cure Index and Cure Chart.

### Organizer Set-up – standardize measurement and sample labeling

Organizers facilitate the setup of measurement parameters and the sample identification, like the number and name of probes, measuring frequency, duration time and starting modes. Product schematics help to define specific sampling procedures. Sensor names can be merged for long term trend comparison. The entered information can be used for filtering or arrangement of the measured data saved in the database. Typical identifiers are name, date and title.

# Speed up your QC with defined procedures

Complete your curing process analysis with a click. Predefined QC procedures can be assigned to an organizer for automatic data analysis after data transfer.

- Curing conditions duration time at specific temperature levels
- Oven specifications speed, zone numbers, oven length
- Tolerance curves or Pass/Fail conditions with traffic light indication or highlighted fail values for analysis at a glance.

Additionally, the Cure Chart analysis quickly determines the efficiency of the curing process and which temperature sensors have met the cure conditions.

## Data analysis – Detailed measurement reports

Depending on your needs, temp-chart offers a variety of measurement reports. The user can define the protocol content:

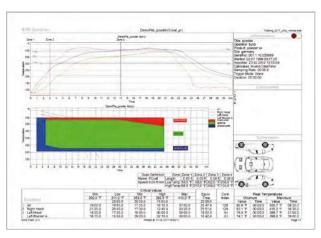
Graphic with temperature profile and upper/lower limits

- Cure Chart analysis
- Data table with Pass/Fail info based on user defined parameters
- Product schematics and process information











temp-gard dual consists of 2 x temp-gard pro 12p systems for controlling up to 24 measurement locations – at a special package price.



#### **Ordering Information**

Cat. No.	Description
3329	temp-gard dual
3319	temp-gard pro 12p
3309	temp-gard pro 12p C
3308	temp-gard pro 12p, no probes
3317	temp-gard pro 6p
3307	temp-gard pro 6p C
3306	temp-gard pro 6p, no probes

#### System Requirements:

Operating system: Windows® 7 or higher Memory: min. 1 GB

Hard disk capacity: min. 100 MB

Monitor resolution: XGA (1024 x 768) or higher

Interface: USB-port

**Note:** temp-chart licence fee for more than two installations is quantity dependent. Please contact your local BYK-Gardner representative.

Probes	
24 magnetic probes = 2 air probes, 22 object probes	
12 magnetic probes = one air probe, 11 object probes	
12 clamp probes = one air probe, 11 object probes	
12 probe connections at logger; No probes*	
magnetic probes = one air probe, 5 object probes	

6 clamp probes = one air probe, 5 object probes 6 probe connections at logger; No probes\* Accuracy ± 0.5 °C

Accuracy	± 0.3 C
Resolution	0.1 °C (0.18 °F) from 0 - 400°C (32 - 752 °F)
No. of Channels	6 or 12
Memory	240,000 readings
Sampling Interval	0.1 sec up to 5 min
Temperature Range	0 - 400 °C (32 - 752 °F)
Battery Capacity	0.5 sec interval = 25 hrs (AA Alkaline)
Display	Color, 79 x 60 mm (3.1 x 2.4 in)
Interface	USB 2.0
Thermal Barrier	255 x 215 x 135 mm
Dimensions	(10.0 x 8.5 x 5.3 in)
Weight	3.56 kg (7.82 lbs)
Maximum Duration	at 100 °C, 8.5 hrs;
	at 200 °C, 2.5 hrs;
	at 250 °C, 2.0 hrs
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 $<sup>^{\</sup>star}$  Probes must be ordered separately for temp-gard 3306 & 3308.