

temp-gard 8p

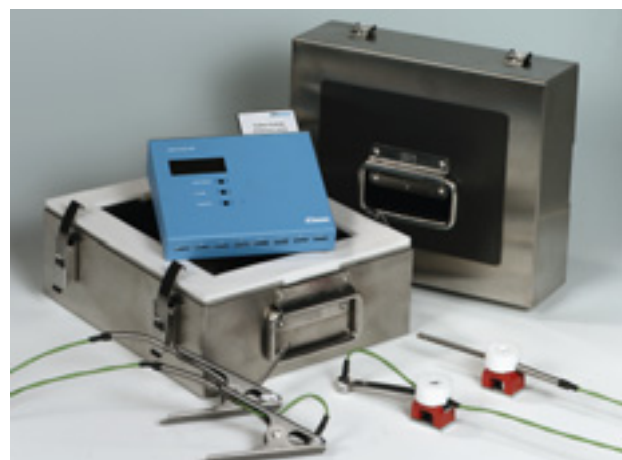
The temp-gard system records and saves object and air temperature during the cure process. Documentation and analysis of the temperature profile is made easy with the temp-chart software: All you need to control and optimize your baking process.

temp-gard 8p system

- Memory card to store the temperature data: unlimited data storage, fast data download, easy file management
- Long lasting batteries - 250,000 readings or 300 hours in continuous operation
- Built-in display shows automatic functionality check and allows direct programming of operating parameters
- Robust thermal barrier made of stainless steel with absolutely safe temperature insulation
- 8 thermocouples for any application
- High accuracy guarantees for long-term reliable results
- Temperature stable results under any circumstances

Put us through the ultimate test:

temp-gard will give you the same results even after being in the oven for more than 1 hour - no drift!!!



Ordering Information

Cat. No.	Description
E-3300	temp-gard 8p
EE-3300	Extended Warranty one year additional

Comes complete with:

temp-gard instrument
temp-chart software
1 Thermal barrier
1 Set of heat sinks
1 Memory card (PCMCIA)
1 Probe for air temperature, magnet
7 Probes for object temperature, magnet
1 Interface cable to PC
2 Mignon batteries
Operating manual
Certificate included
Carrying case
Training



For Recertification
and Calibration
Services
see page 174.

Technical Specifications

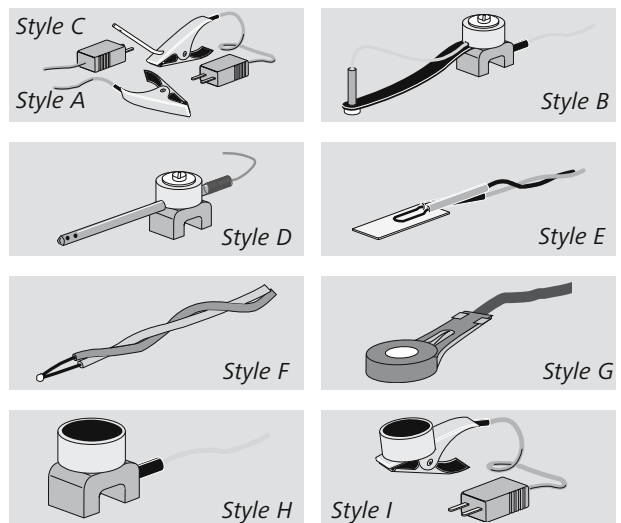
temp-gard 8p	
Accuracy	$\pm 0.5 \text{ }^{\circ}\text{C}$
Resolution	$0.1 \text{ }^{\circ}\text{C}$ at $280 \text{ }^{\circ}\text{C}$
No. of Channels	8
Memory	500 KB on memorycard
Sampling Interval	1 sec up to 5 min
Temperature Range	0 to $120 \text{ }^{\circ}\text{C}$; $280 \text{ }^{\circ}\text{C}$; $500 \text{ }^{\circ}\text{C}$
Trigger	start-key; time; threshold
Battery Capacity	1 sec interval = 30 h battery
Display	4 columns with green LCD
Interface	PCMCIA-card and RS 232
Thermal Barrier	
Dimensions	245 x 209 x 160 mm (9.6 x 8.2 x 6.3 in)
Weight	5.5 kg (12.1 lbs)
Maximum Duration	at $100 \text{ }^{\circ}\text{C}$, 9 h; at $200 \text{ }^{\circ}\text{C}$, 4 h; at $250 \text{ }^{\circ}\text{C}$, 3 h

Hardware Requirements:

Windows® 95; 98 or NT-computer with min. 6 MB available hard disk space;
3.5 inch floppy disk drive, serial port, PCMCIA slot or drive, Windows®
compatible printer

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



Ordering Information

Cat. No.	Description
E-3121	Object Probe
E-3122	Object Probe
E-3123	Object Probe
E-3124	Object Probe
E-3125	Object Probe
E-3126	Object Probe
E-3127	Air Probe
E-3128	Air Probe
E-3129	Air Probe
E-3130	Air Probe
E-3131	Air Probe
E-3132	Air Probe
E-3133	Foil Probe
E-3134	Open Probe
E-3135	Open Probe
E-3136	Open Probe
E-3137	Extension
E-3138	Extension
E-3141	Object Probe
E-3142	Object Probe
E-3143	IR Probe
E-3144	IR Probe
E-3038	Adhesive Tape
E-3321	Thermal Barrier
E-3322	Heat Sink
E-3323	Thermal Barrier lite
E-3324	Thermal Barrier
E-3315	temp-gard logger
E-3330	Memory Card
E-3331	PCMCIA Card Reader
E-3335	Printer with Printer Interface Box
E-3336	Printer Interface Box
E-3340	Printer
E-3332	Barrier

Technical Specifications

Style	Probe	Length	Attachment	Max Temperature
A	object	1.5 m	clamp	265 °C (509 °F)
A	object	3 m	clamp	265 °C (509 °F)
A	object	8 m	clamp	265 °C (509 °F)
B	object	1.5 m	magnet	265 °C (509 °F)
B	object	3 m	magnet	265 °C (509 °F)
B	object	8 m	magnet	265 °C (509 °F)
C	air	1.5 m	clamp	265 °C (509 °F)
C	air	3 m	clamp	265 °C (509 °F)
C	air	8 m	clamp	265 °C (509 °F)
D	air	1.5 m	magnet	265 °C (509 °F)
D	air	3 m	magnet	265 °C (509 °F)
D	air	8 m	magnet	265 °C (509 °F)
E	foil	1.5 m		265 °C (509 °F)
F	open junction	1.5 m		265 °C (509 °F)
F	open junction	3 m		265 °C (509 °F)
F	open junction	8 m		265 °C (509 °F)
	extension	3 m		265 °C (509 °F)
	extension	5 m		265 °C (509 °F)
G	object	1.5 m	washer 4 mm	265 °C (509 °F)
G	object	3 m	washer 4 mm	265 °C (509 °F)
H	IR	3 m	magnet	265 °C (509 °F)
I	IR	3 m	clamp	265 °C (509 °F)

heat-proof adhesive tape for attachment of foil probes

incl. 2 heat sinks, max duration at 250 °C, 3h

1 piece

lite max duration at 250 °C, 40 min

max duration incl. 2 x 3322 at 500 °C, 15min (400 °C = 30 min)

temp-gard 8p logger

PCMCIA-Memorycard

external card drive for PC; parallel port

for temp-gard 8p/basic

for temp-gard 8p/basic

for temp-gard 8p/basic

Cover for heat sink to protect against penetration of water/vapors

temp-gard basic

temp-gard basic comes with everything you need to record - analyze your oven temperature.

The optional printer interface adds the possibility to print and document the oven profile at the production line - without a PC!

Step 1

The highly accurate data logger records up to 8 channels of temperature data and stores them on a PCMCIA memory card.

Step 2

Connect the portable printer to the printer interface box and put your memory card in.

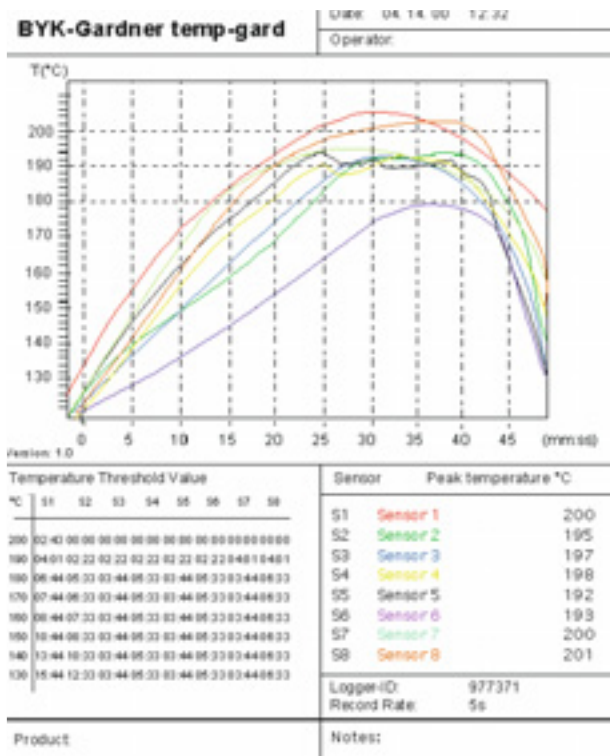
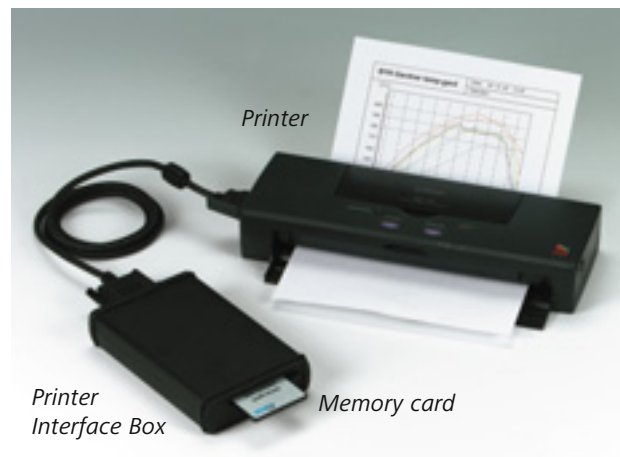
Step 3

A complete QC report will be printed automatically that includes the following:

- Graph of temperature profile
- Peak temperatures
- Table with temperature data and duration for each probe.

Step 4

You can download your measurement results from the memory card to EXCEL with the easy-link software - all included.



You no longer have to wait to view your report or take information back to your office.

- Highly accurate and long-term reliable measurement data
- PCMCIA memory card: stores the data, guarantees fast data download and makes file management easy
- Long lasting, standard batteries - available off the shelf: Your system is always ready
- Small, robust thermal barrier made of stainless steel
- 4 thermocouples for object and air temperature included (up to 8 probes can be connected)



You can upgrade the temp-gard basic with our temp-chart software for a full analysis of your temperature profile. See pages 155 - 156.

Training temp-gard / temp-chart

BYK-Gardner offers you more than just an instrument. We assist you in operation of the temp-gard data logger and temp-chart Software to analyze your curing process. As a result you will be able to use the system to save time and money and at the same time improve your quality. Therefore, the instrument comes with a half day training course including:

1. Temperature Analysis, Oven Profiles Theory
 - Temperature versus time, typical process curves
 - Data interpretation: How can the oven profile be used to optimize process / material parameters
2. temp-gard Operation
 - Setup parameters on the instrument

3. Operation and Software Training

- Software overview
- Setup a template to create a routine measurement procedure
- Programming of temp-gard with templates and measurement in production oven
- Data transfer to temp-chart software and saving in a file for routine process control

4. Data analysis:

- Oven analysis
- Process optimization
- Identification of problems

Ordering Information

Cat. No.	Description
E-3333	temp-gard basic
EE-3333	Extended Warranty one year additional

Comes complete with:

temp-gard instrument
 1 Thermal barrier
 1 PCMCIA Memory card
 1 Probe for air temperature, magnet, 3m
 3 Probes for object temperature, magnet, 3m
 1 Interface cable
 4 Alkaline batteries
 easy-link Software
 Operating manual
 Certificate
 Carrying case
 Training

Technical Specifications

temp-gard basic	
Accuracy	± 0.5 °C
Resolution	0.1 °C at 280 °C
No. of Channels	8
Memory	500 KB on memory card
Sampling Interval	1 sec up to 5 min
Temperature Range	0 °C to 120 °C; 280 °C; 500 °C
Trigger	start key; time; threshold
Battery Capacity	1 sec interval = 30 h battery
Display	4 columns, green LCD
Interface	PCMCIA card and RS 232
Thermal Barrier	
Dimensions	245 x 209 x 101 mm (9.6 x 8.2 x 4 in)
Weight	4.1 kg (9 lbs)
Maximum Duration	at 100 °C 90 min; at 150 °C 65 min; at 200 °C 45 m

Accessories

Cat. No.	Description
E-3310	temp-chart Software
E-3321	Thermal Barrier
E-3331	PCMCIA Card Reader
E-3336	Printer Interface Box
E-3335	Printer with Printer Interface Box
E-3340	Printer

Note: Please check page 152 for a complete listing of accessories.



You can upgrade the temp-gard basic with our temp-chart software for a full analysis of your temperature profile. See pages 155 - 156



For Calibration Services see page 174.