

gradient-oven

The gradient-oven is a test apparatus for evaluating the baking and drying behavior of liquid coatings, powder coatings, resins, plastics, etc. A production baking process can be simulated by programming heat-up speed, baking temperature and time.

- Saves time and energy
- Generates various curing temperatures on one panel
- Simulates the temperature profile of a production oven in the laboratory



gradient-oven PT-2610 with optional printer Cat. No. PT-2630

Ordering Information

Cat. No.	Description
PT-2602	gradient-oven 250 °C
PT-2610	gradient-oven 320 °C
SE-2602	Extended Warranty one year additional

Comes complete with:

gradient-oven
exhaust tube
1 pc. glass plate
25 pcs. test panels
25 pcs. marking strips
Training

Training for gradient oven / temp-chart

BYK-Gardner offers you more than just an instrument. We assist you in operation of the gradient-oven and temperature analysis. 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. gradient-oven Operation

- Set-up parameters
- Linear and step gradient
- Macros
- Double macro

3. Operation and Software Training

- Software overview
- Send an oven profile to the gradient oven
- Programming of gradient-oven with temp-chart software
- Data transfer to gradient-oven and online monitoring

Technical Specifications

	Temperature	Connection for temp-gard oven recorder
	30 - 250 °C (86 - 482 °F)	included
	30 - 320 °C (86 - 608 °F)	included
Voltage	230 V, 50/60 Hz	
Power	3400 VA	
Consumption		
Heating Surface	520 x 100 mm (20.4 x 3.9 in)	
Test Surface	500 x 70 mm (19.6 x 2.7 in)	
Heating Elements	45 pcs.	
Pressure Platform	reciprocates automatically (16 kp) for insertion and removal of panel	
Linear Gradient	max. temp. difference between: 30 and 250 (320) °C: 100 °C; 86 and 482 (608) °F: 180 °F	
Step Gradient	with 2, 3 or 4 steps: max temp. difference betw. 2 steps: 50 °C (90 °F)	
Heat-Up-Speed	2 °C to 30 °C/min, programmable (3.6 °F/min to 54 °F/min)	
Baking Time	in sec. and min.	
Memory	max. 10 gradients	
Accuracy	control accuracy of the heating elements: < ± 2 °C (< 3.6 °F) surface temperatures on 0.8 mm test panels from element 3 to 43: to 200 ° ± 2 °C (to 392 ° ± 3.6 °F) to 250 ° ± 3 °C (to 482 ° ± 5.4 °F) to 320 ° ± 5 °C (to 608 ° ± 9.0 °F) measured under specific test conditions	
Dimensions	465 x 720 x 595 mm (18 x 28 x 23 in)	
Weight	50 kg (110 lbs)	

gradient-oven Accessories

Certified

For Preventive Maintenance see page 273.



Test Panel with Marking Strip



Application Device



Printer with Paper Types



Portix, infrared thermometer

Ordering Information

Cat. No.	Description
PT-2634	Printer Ribbon
PT-2636	Self-Adhesive Printer Paper
PT-2637	Self-Adhesive Printer Paper
PT-2645	Jig for Powder Coating Application
PT-2626	Glass Plate
PT-2627	Glass Plate
PT-2623	Test Panels
PT-2628	Film Application Device
PT-2630	Flat Bed Printer
PT-2621	Exhaust Tube
PT-2622	Marking Strips
PT-2900	Portix, infrared thermometer

Comes complete with:

Infrared thermometer; NiCrNi connection;
Adaptix-C file transfer software; 9 V alkaline battery; Carrying case

Accessories

For flat bed printer, Cat. No. PT-2630
For flat bed printer, Cat. No. PT-2630; for printing reports; Set of 100 sheets for 200 reports
For flat bed printer, Cat. No. PT-2630; for printing panel marking strips; Set of 100 sheets for 200 marking strips
To facilitate application of powder
For gradient-oven, Cat. No. PT-2600 to PT-2610 to protect heating bank
For gradient-oven (old model black), Cat. No. PT-2611 to PT-2617 to protect heating bank
For application of samples for the gradient-oven; made of ST 14 0 5 steel; dimensions: 568 x 98 x 0.8 mm (22.36 x 3.86 x 0.03 in.); Set of 100
Solid aluminum construction, 6 knurled screws for secure clamping of test panel during paint application, free floating slide jig holds film applicator; Recommended film applicators PA-2056, PA-2057
For gradient-oven, Cat. No. PT-2600 to PT-2610; incl. accessories Length 2.5 m (98.4 in.); \varnothing 80 mm (3.1 in.)
Self-adhesive strips for test panels, Cat. No. PT-2623; Set of 100

Measuring Range	-30 - 400 °C (-22 - 752 °F)
Target	5 mm diameter at a distance of 40 mm
Resolution	0.1 °C
Dimensions	175 x 60.5 x 35.5 mm (7 x 2.5 x 1.5 in)
Weight	270 g (0.6 lbs) incl. battery
Uncertainty	1 °C \pm 1 digit; at e 1 and Tu = 23 °C