



**BGK**

**Electric Infrared  
Curing Solutions**

**For Curing...**  
Water-base  
Solvent-base  
Powder

**For Drying...**  
Chromates  
Lubricants  
Phosphates  
Anti-fingerprint

**BGK Electric Infrared Benefits:**

- Direct Heat Transfer
- High-Efficiency (short ovens and operating costs)
- Instant Heat Output Control
- 0-100% Temperature Control
- Separate Zones (flexibility and energy savings)
- Self-Cleaning Interior
- No Pre-Heat

**Patent #6642486**



# IR Smart Oven

The IR Smart lab oven was designed to test your coatings and processes in your own facility. This oven will demonstrate the many benefits of electric infrared for drying and curing.

BGK created the IR Smart lab oven to provide valuable data to aid in the process development and support of your infrared curing customers. The oven is designed to provide an accurate and repeatable testing environment.

**The IR Smart Difference**

- Control
- Repeatability
- $\pm 2\%$  Temperature Accuracy
- High Efficiency



**Primary Features:**

- Independently Controllable Infrared Heat Zones
- Closed Loop Temperature Controls (PLC with operator interface screen)
- Built-in Pyrometer Temperature Sensor (calibration panels included)
- Four Modes of Operational Control
- Pre-Mounted Exhaust Blower

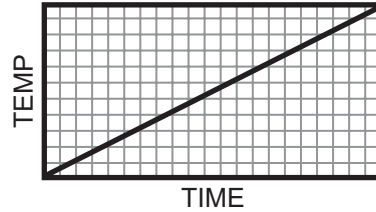
**Optional Feature:**

- Smart Logger – allows creation of data files to store or print test data

# IR Smart Oven

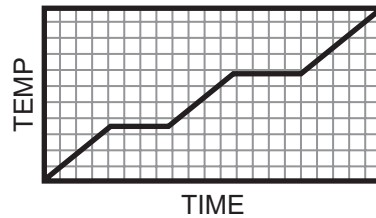
## Operating Modes

### Manual



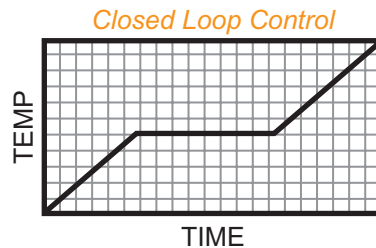
Enter desired % power output for the heaters. The start and stop buttons turn the heaters on and off.

### Time/Power



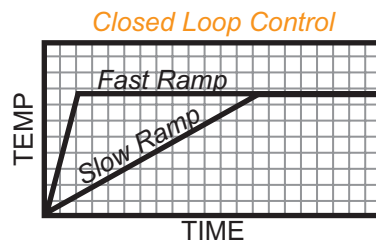
Enter desired % power output and the desired amount of time. The temperature the panel achieves is the variable (up to 20 steps possible).

### Power/Temp



Enter desired % power output and the desired panel temperature. The time it takes the panel to reach temperature is the variable (up to 20 steps possible).

### Time/Temp



A PID control algorithm ramps the part temperature to set-point via operator defined maximum power output rate (slow or fast). The power output required to maintain part temperature is the variable (up to 20 steps possible).

<b>Size</b>	43.25" W × 54.81" H × 33.0" D (1099mm×1392mm×838mm)
<b>Weight</b>	425 pounds (193 Kg)
<b>Test Panel Size</b>	10" × 14" (254mm × 356mm) Maximum
<b>Heat Zones</b>	Top and Bottom (controlled independently)
<b>Operating Modes</b>	Manual • Time/Power • Power/Temp • Time/Temp
<b>Power</b>	480 / 3Ø / 60 Hz • 44 amps • 28 kW (alternate voltages available)
<b>Lamps</b>	(24) 1550 T3 Short-Wave • 290 volt
<b>Product Temperature</b>	500°F (high temperature options available)

## IR Smart Oven Specifications

**Curing Paint...  
It's What We Do.**