

GROUP 6 - Infrared radiation equipment

6.7 - Ceramic infrared emitters

The ceramic heater is an efficient and robust heater that provides long and medium wavelength infrared radiation. It is used in applications that range from thermoforming or preheating, to the processing of foundry blacking. Almost all materials needing drying or heating have a maximum absorption of between 3 and 7 microns. The ceramic heater was developed with this idea in mind and it is the reason why it can be applied to so many different examples of industrial processes.

The ceramic heater is manufactured using a specialised process that requires the alloying of an electrically resistive wire, which is fused to the ceramic body. Subsequently, the ceramic body is given a layer of enamel to protect it from humidity. Moreover, it protects the heater from corrosive and atmospheric attack. In this way, ceramic heating elements optimise the characteristics of maximum absorption, operating at temperatures which range from 300°C to 750°C, with the emission of wavelengths ranging from 3 to 7 microns.

The ceramic heater has been designed so as to offer a very high efficiency (more than 85% in appropriately designed systems), flexibility of arrangement, interchangeability for maintenance, long life, and uniformity from heating element to heating element. The ceramic heating elements are the chosen heaters in the majority of applications that require efficiency of radiation at a competitive price.

In addition to the OSCxxK models, on order its possible provide the models OSCP, OSPG and OSPP with built-in K type thermocouple

Usual applications

Mass heating

- Softening of plastic for thermoforming machines.
- Preheating of vacuum formed sheets.
- Heat adjustment of asbestos cloth after weaving.
- Retraction of plastics.
- Soldered recirculation/ Wave ovens.
- Closing of glass joints on metal and bending of the glass

Drying applications

- Continuous paper tape and impregnated protective layers.
- Water based dyes, protective layers, and adhesives.
- Drying of paint.
- Memory panels and woods.
- Enamelling on ceramic.

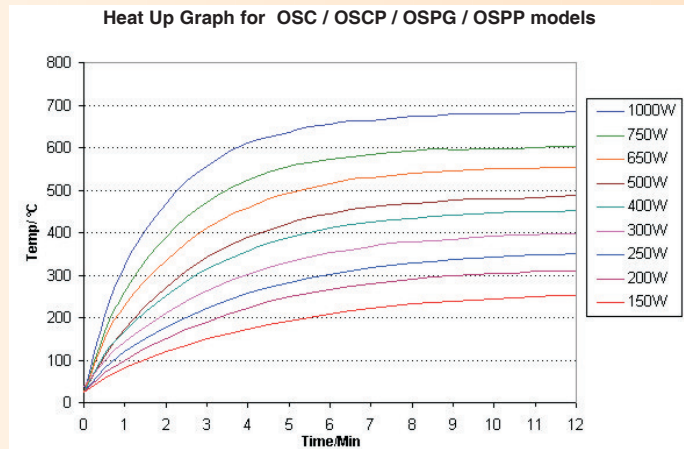
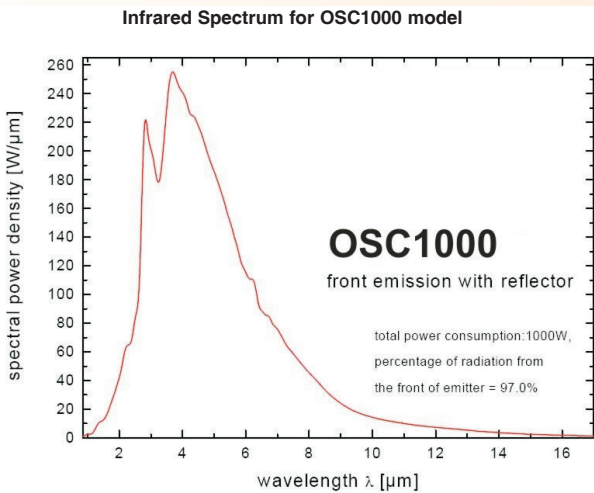
Heating and treatment applications

- Vaporisation and oxidising powder treatments.
- Preheating in packaging machines.
- Acceleration of chemical reactions.
- P.T.E.F. treatments.
- Finishing of cars and under-sealing.
- Printed lamination.



OSC / OSCP

Models as per catalogue: NTC - 9506



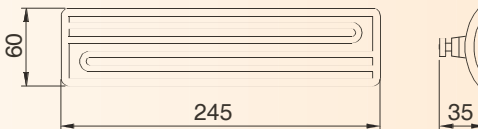
- Based on OSC test of average surface temperature with an infrared thermometer set at an emissivity of 0.9 (with the element mounted in an aluminised steel reflector OSCN)
- These temperatures also apply to the OSPG
- For OSCP divide the wattage by 2
- For OSPP divide the wattage by 4

RECTANGULAR CURVED OSC MODELS 245x60 mm

Code	Watts	Weight Kg
OSC200	200	0,23
OSC250	250	0,23
OSC300	300	0,23
OSC400	400	0,23
OSC500	500	0,23
OSC650	650	0,23
OSC750	750	0,23
OSC800	800	0,23
OSC1000	1000	0,23



Common dimensions for models
OSC and OSCxxK



RECTANGULAR CURVED OSCxxK MODELS 245x60 mm WITH BUILT-IN K TYPE THERMOCOUPLE

Code	Watts	Weight Kg
OSC250K	250	0,26
OSC400K	400	0,26
OSC500K	500	0,26
OSC750K	750	0,26
OSC1000K	1000	0,26

RECTANGULAR CURVED OSCP MODELS 122x60 mm

Code	Watts	Weight Kg
OSCP125	125	0,14
OSCP200	200	0,14
OSCP325	325	0,14
OSCP400	400	0,14
OSCP500	500	0,14

