

Overview:

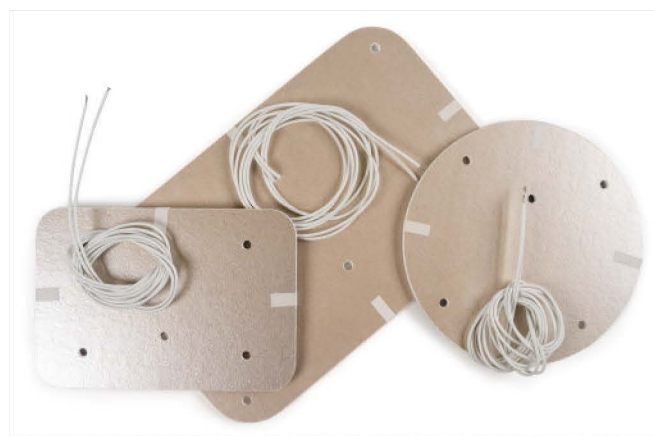
Calcium Silicate Ceramic flat panel heater plates which can be used when high power densities are required to achieve fast ramp up temperatures.

Our ceramic heaters combine a helix coiled nickel chrome resistance wire with a high temperature insulator, giving an ideal solution for a vast range of industrial heating applications where temperatures of up to 500°C are required.



Main points:

- Suitable for high temperature applications where fast heat up times and heat recovery are more critical.
- Machinable to bespoke shapes and sizes.
- Easy to install.
- Ideal for use on high mass heatsinks with suitable control.
- Calcium Silicate ceramic body insulated with Filamic rigid mica plates on each face to improve dielectric strength.
- Bespoke digital marking available.
- IP rating IP62
- Chemically resistant to common alkalis and solvents.



CONSTRUCTION:

Ceramic heaters are designed for a maximum continuous operating temperature of 500°C. The helix coiled nickel chrome resistance wire is embedded into the heater thickness and encapsulated with ceramic oxide. The outside of the heater is covered with ridged mica plates, fitted to the heater surfaces to improve dielectric strength and improve compressive strength. Supply leads would normally exit the heater face but parts can be manufactured with leads exiting from the edge.

CHARACTERISTICS:

Ceramic heaters have good thermal stability and electric insulation properties, and are resistant to common alkalis and solvents. Free from asbestos and mineral fibres with low shrinkage.

FIXINGS:

Ceramic heaters should have direct contact with the heatsink surface and be clamped / bolted into position.

HEALTH & SAFETY:

Ceramic heaters are intended for use in industrial electric apparatus. They correspond to EN 60335-1:2012 and are CE marked. The heater has to be operated in accordance with these standards and regulations, and should be installed on an electrical system protected by a residual current circuit breaker.

TECHNICAL DATA

THICKNESS	6mm/13mm
TEMPERATURE RANGES	-60°C to 500°C
POWER RATING	<4W/cm ²
MAXIMUM SIZE RANGE	575 X 875mm
MINIMUM SIZE RANGE	25 x 50mm
SUPPLY LEADS	Glass braided insulation, nickel conductor
VOLTAGE	< 480V Single/3 phase*
Shrinkage Thickness 500°C/4hrs	0.68%
Shrinkage Linear 500°C/4hrs	0.29%
Thermal Conductivity @ 500°C	0.3 W/mK
Bulk Density	770 Kg/m ³
Flexural Strength	7.0 MPa
Compressive Strength (at 5% compaction)	11.5 MPa
Dielectric Strength	25 kV/mm

*Ceramic heaters can be designed and manufactured for three phase supplies, dependent on the size.