

Printed Polymer Constant Wattage

Description

Printed Polymer heaters are based on low resistance printed silver as electrodes. The heat is generated by a number of parallel connected polymer resistors and is therefore very robust and insensitive to small damages. The resistance is virtually constant up to 100°C.

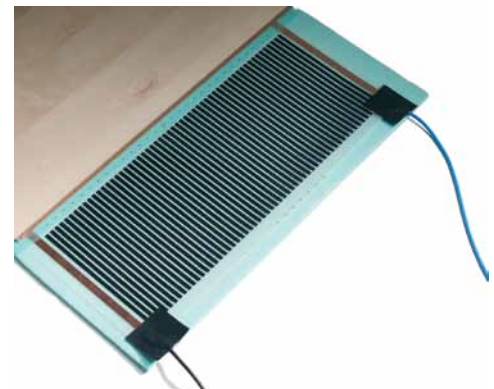
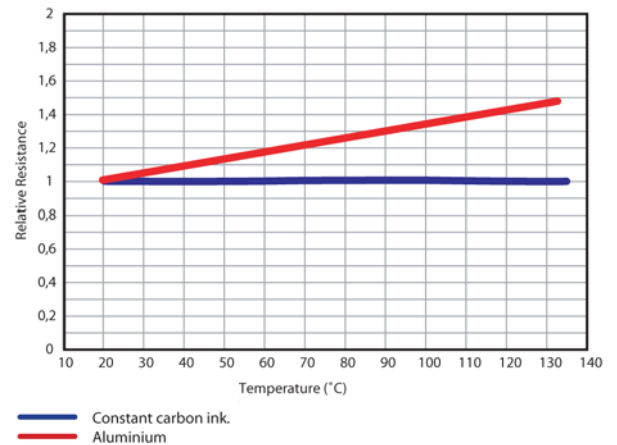
Polymer heaters are mostly used in low power applications, at moderate to high voltage, where one normally needs to use precious metals to achieve low power. The resistance can be adjusted in a range from 100 ohm/sq to 5000 ohm/sq and is therefore suitable for many different applications. A polymer heater is also more corrosion resistance than metal heaters.

Technical specification

Max element temp.	100 °C (212°F)
Min. element temp.	-50°C (-58°F)
Dielectric strength at 20°C as per ASTM KV/mm	NA
Thermal conductivity at 100 °C/m °K	NA
Moisture absorption as per ASTM D-570-63. (24h immersion at 23°C)	NA
Constant of dielectricity at 25°C, 50Hz	NA
Power density	0.1 W/cm ²
Resistance tolerance	±20%
Rated voltage	230 V
Other	Possible substrates: PET, glass, paper etc.



Constant Wattage Heater



Floor heating

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Printed elements

Benefits

- Possible to use on many different substrates
- Robust design insensitive to small damages
- Corrosion resistant
- Large span of resistivity

Fields of application

- Floor Heating
- IR targets
- Waterbed heaters
- High voltage, small area applications

