

Flexible Heaters

Fast Quotes - Fast Delivery - High Quality
Now offering **HighTemp™** Heaters

CUSTOM HEATERS

All Flex manufactures precision-grade etched foil flexible heaters constructed of both polyimide and silicone rubber. With its extensive design and application engineering support team, the company offers highly-customized heaters that are engineered specifically to meet the overall physical, thermal, and environmental requirements of its customers.



All Flex custom heaters are used in medical, aerospace, industrial, military, instrumentation and other outdoor applications where thermal management and cold temperature protection is needed.

Characteristics	Typical Parameters Polyimide	Typical Parameters Silicone Rubber	NEW HighTemp™ Polyimide
Size Range	Less than 1/2" sq. to 16" X 6+ ft	Less than 1/2" sq. to 30" X 6+ ft	Less than 1/2" sq. to 16" X 6+ ft
Temperature Range*	150 – 200C (300-390F)	Up to 235C (455F)	Up to 250C (482F)
Resistance Range	Up to 250 ohms per square inch	Up to 250 ohms per square inch	Up to 250 ohms per square inch
Metal Thickness Range	.0005" - .00023"	.0005" - .00023"	.0005" – 0.0023"
Total Thickness Range	.0045" - .01"	.015" - .060"	.0035" – 0.010"
Insulation Resistance	4000-5000 V/mil	400-600 V/mil	5000-6000 V/mil
Example Power Densities	.1 W/in2 to 20W/in2	.1 W/in2 to 50W/in2	.1 W/in2 to 60 W/in2
Resistance Tolerance	+/- 10%	+/- 10%	+/- 10%
Standard Coverlay Thickness	.001", .002", .003", .005"	.008" or .015"	.001", .0015, .002, .003
Leads (if required)	Length/AWG/Coating Options	Length/AWG/Coating Options	Length/AWG/Coating Options
Minimum Bend Radius**	.030"	.125"	.030"
General Chemical Resistivity	Better	Good	Best
Out gassing / Aerospace	Good	Not recommended	Good
Edge Insulation	.030"	.030"	.030"
Bond/Peel Strength (to flat plate using PSA)***	101 oz/inch	20 oz/inch	101 oz/inch

Note: These are standard parameters. Inquire for requirements beyond this range.

Note: Customer is responsible for ensuring an adequate bond of the heater to its mounting surface. Utilizing proper surface preparation and pressure procedures to ensure thermal transfer away from the heating element.

Note: For a small radius wrap, it is recommended that supplemental means be used to ensure that the heater maintains tight bond to the mounting surface. Polyimide tape (3M P/N 5413 Amber) is one possible solution.

* Continuous Operating Temperatures. Contact All Flex for short duration peaks. UL certification is not available above 105C.

** Application-specific and must be validated by customer.

*** Bond data per 3M specification and test protocol. Actual data will vary depending upon application and construction.

HighTemp™ heater materials are UL rated to 94V-0 and 746F, meet IPC Specifications and RoHS

PRODUCT DETAILS

- Integration of RTD, sensors, and other thermal control devices
- Design of custom heaters with unique requirements
 - Bifilar
 - Multi-zone
 - Profiled
 - Combination/hybrid heaters and flexible circuits
- Extended lengths
- Etched foil
- Polyimide
- Silicone rubber
- Non-traditional materials and foils
- UL certified/marked
- Custom marking
- Wire assembly
- Mounting of heaters



Save money and time by designing your own quick turn custom heater using our Build-A-Heater configurator. Visit www.allflexheaters.com