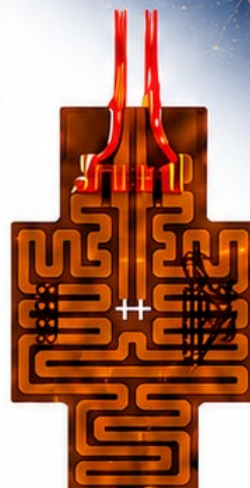




POLYIMIDE (WITH ACRYLIC ADHESIVE) FLEXIBLE HEATER

Reliable Thermal Performance. Built for Space.

MINCO's Polyimide (with Acrylic Adhesive) Flexible Heaters deliver outstanding performance and durability with polyimide construction and an acrylic internal adhesive between two layers of polyimide. Ideal for the most demanding space applications.



✓ Low
Outgassing

BUILT FOR SPACE

✓ Radiation
Resistant

✓ Lightweight &
Flexible

KEY PERFORMANCE SPECIFICATIONS



WATT DENSITY

Up to 50 W/in²
(7.75 W/cm²)



RESISTANCE DENSITY

1500 ohms/in²
(233 ohms/cm²)



TEMPERATURE RANGE

-200 to 150°C
(-328 to 302°F)
UL Recognized:
-200 to 150°C



MIN. LINE WIDTH

5 mils



MIN. LINE SPACING

5 mils

NASA S-311-P-840 Approved



LOW OUTGASSING

0.36% total mass loss,
0.01% CVCM
per NASA-JSC.



EXCELLENT THERMAL UNIFORMITY

Consistent heat
distribution for
reliable performance.



FLEXIBLE & LIGHTWEIGHT

Conforms to curved
surfaces and
complex geometries.



RADIATION RESISTANT

Polyimide materials
withstand radiation
in space environments.



CHEMICAL RESISTANT

Resistant to most
chemicals and
solvents.



CUSTOM ENGINEERED

Round, rectangular
& irregular shapes.
Optional sensors.



www.minco.com



custserv@minco.com



+1 763-571-3121

TYPICAL SPECIFICATIONS:

Temperature Range	-200 to 150°C (-328 to 302°F) UL Recognized: -200 to 150°C (-328 to 302°F)
Watt Density	Up to 50 W/in ² (7.75 W/cm ²)
Maximum Operating Temperature	150°C (302°F)
Dielectric Strength	1000 VRMS at 60 Hz for 1 minute
Insulation Resistance	1000 megohms min. at 500 VDC
Outgassing (NASA-JSC)	0.36% total mass loss, 0.01% CVCM
Agency Approvals	UL recognition optional
Maximum Size	22" x 72" (559 x 1829 mm) Consult Minco for larger size options.
Maximum Resistance Density	1500 Ω /in ² (233 Ω /cm ²)
Leadwires	Stranded, PTFE insulated, AWG 30 to AWG 20
Heater Thickness	Over element: 0.012" (0.3 mm) max. Over leadwire terminations: 0.150" (3.8 mm) ref.

PROVEN SOLUTIONS FOR SPACE APPLICATIONS



SPACECRAFT & SATELLITE SYSTEMS



VACUUM CHAMBERS & INSTRUMENTATION



SEMICONDUCTOR PROCESS EQUIPMENT



SCIENTIFIC & RESEARCH EQUIPMENT



OPTICAL & PRECISION DEVICES



TURNKEY ASSEMBLY SOLUTIONS

Reduce assembly time and total cost.



Higher temperature
capability to 150°C



Higher watt density
for compact designs



Efficient thermal
cycling



Custom profiling for
uniform heat output



Factory lamination
saves space & time



www.minco.com



custserv@minco.com



+1 763-571-3121