

All-Polyimide (AP) Heaters

260°C

AP heaters are a high performance alternative to Minco's standard Kapton heaters, allowing higher temperatures and watt densities. They must be factory mounted or clamped to heat sinks.

- ◆ Uniform heating to 260°C (500°F)
- ◆ Exceptional temperature uniformity when designed with a heat-profiled foil pattern
- ◆ Thin, flexible etched-foil construction
- ◆ Available in round, rectangular, and irregular shapes
- ◆ Can be factory bonded to mating parts with no clamping hardware!
- ◆ Power ratings to 80 watts per square inch
- ◆ Resistant to most chemicals
- ◆ Optional built-in temperature sensors
- ◆ Custom designs only



Typical applications

- ◆ Semiconductor wafer processing
- ◆ Satellites or other spacecraft
- ◆ Heating of electronic components
- ◆ Packaging, fusing, and splicing equipment

Specifications

Temperature range: -200 to 260°C (-328 to 500°F).

With UL component recognition: -200 to 240°C (-328 to 464°F).

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.

Dielectric strength: 1000 VRMS at 60 Hz for 1 minute.

Insulation resistance: 1000 megohms min. at 500 VDC.

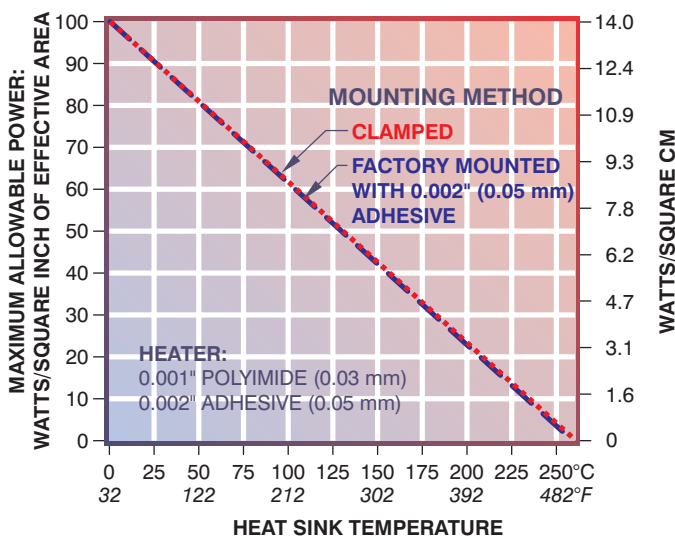
Outgassing: 0.36% total mass loss, 0.01% collected volatile condensable material, per NASA-JSFC.

Approvals: UL.

Maximum size: 24" × 42" (610 mm × 1067 mm).

Maximum resistance density: 1500 Ω/in².

Maximum watt density, AP heaters



Example: At 150°C, the maximum power of a factory-mounted AP heater is 22 W/in².