

HEATER SELECTION GUIDE

Southern
Heat

Selecting the best band heater for your application can be challenging. Factors like heat distribution, efficiency, temperature needs, durability, size, and cost all matter. **Use our guide to find the right fit.**



*CASTING ALLOYS:

Aluminum

Up to 750°F
35 W/in²

Bronze

Up to 1350°F
45 W/in²

Brass

Up to 1200°F
45 W/in²

Operating Environment

Mica Band: Clean, dry environments

Ceramic: Tolerates higher temps and some moisture

Aluminum: Moderate-duty, dry environments

Cast-In: Harsh, high heat, or corrosive environments

MI: High-precision, high-temp, clean processes

Heater Life

Mica Band: Moderate

Ceramic: Long

Aluminum: Moderate

Cast-In: Very Long

MI: Very Long

Replacement Cost

Mica Band: \$ Low

Ceramic: \$\$ Moderate

Aluminum: \$\$ Moderate

Cast-In: \$\$\$ High

MI: \$\$\$ High

Type of Heater

Mica Band Heater

Ceramic Band Heater

Aluminum Band Heater

Mineral Insulated Band Heater

Cast-In Band Heater

Max Temp (°F)

Up to 900°F

Up to 1400°F

Up to 650°F

Up to 1400°F

Up to 1350°F *

Max Watt Density

45 W/in²

45 W/in²

35 W/in²

150 W/in²

Up to 45 W/in² *

Heat Distribution

Good

Excellent

Very Good

Excellent

Excellent

Construction

Thin mica layers between metal sheets

Coiled resistance wire inside ceramic bricks

Solid aluminum block

Compacted magnesium oxide inside metal sheath

Aluminum or bronze casting around heating element

Energy Efficiency

Moderate

High (with insulation)

Moderate

Very High

High

Ideal Applications

Plastics, Injection Molding, Packaging

Extrusion, Blow Molding, Higher-temp plastics

Packaging, Sealing, Moderate temp zones

Medical, aerospace, precision tooling

Extrusion Dies, Molds, Heavy-duty industrial systems

Notes

Best for budget sensitive projects

Great for high-temp, energy efficient processes

Rigid and durable, handles abuse well

Superior heat transfer and longevity; ideal for tight tolerances

Ideal when form-fitting or custom design is essential

⚠ Note: Actual wattage depends on the heater's size, diameter, width, voltage, and application needs.

For assistance selecting a heater, contact our team of sales engineers. They would be happy to assist you!