

## FOIL LAMINATED HEATERS

Custom Foil Laminated Heating Elements are manufactured by JenTer with standard profiles ranging from 3/16" – 7/32" (4.76 – 5.56mm). These heaters are fully tested per UL 499 for humidity, temperature, and dielectric. Foil heaters are typically mounted to the application using Pressure Sensitive Adhesive (PSA). Foil heaters conform to most cylindrical, contoured, or flat surfaces, providing very efficient heat transfer and unique patterns for uniform heating.

Foil heaters are ideal for low moisture applications that require a cost effective, robust, long lasting heat solution. Foil heaters conform to specific custom patterns for even or concentrated heat distribution within customer applications. The PSA mounts directly to the heated or remote surface. There are generally two temperature ranges for foil heaters - Acrylic and Silicone PSA. The acrylic adhesive is rated up to 150°C (302°F) and the silicone adhesive is rated to 316°C (600°F) depending on the specific application. Many lead wire gauges and styles are available. Most lead termination options are also available.

Foil heaters are a very cost effective solution for many applications. All designs are custom engineered to meet customer specifications.

Foil heaters are replacing many other more expensive heating options with exceptional results.

Customers have realized performance improvements of 40% efficiency when transitioning to fiberglass foil heaters from sheathed heating elements. Additional distinct advantages include:

- Economical solution
- Versatile application
- Improved surface contact
- Heat large surface areas
- Improved heat transfer
- Long field life
- Low development cost
- No special tooling



Shown Above - Foil Heaters available in 2 MIL or 5 MIL thickness, Silicone, PVC, or Fiberglass Elements.

Shown Below - various styles, sizes, and lead-wire extensions available from JenTer on foil heaters made with silicone, PVC, or fiberglass heating elements.



In addition, JenTer flexible heaters are available with custom design modifications or add-on features such as RTD sensors, Thermocouples, Thermistors, and many other components.

JenTer typically builds to order, but we regularly meet expedited customer delivery requests. We also assist customers with demand analysis and determining proper inventory levels to ensure uninterrupted production.

Please contact us to discuss your product specifications & requirements today!

## CUSTOM FLEXIBLE FOIL HEATERS

Available for products listed below as well as many additional products:

- Incubators
- Sterilizers
- Photocopiers
- Composite bonding
- Humidity Control Systems
- Laser printing
- Foodservice equipment
- Fluid line freeze protection
- Outdoor electric boxes
- Motor dehumidification
- Shrink film packaging
- Drum warming
- ATM's
- Coin dispensors
- Heated tabletops
- Overhead doors
- Freezer/Refrigerator defrost
- Ceiling/Wall radiant heat
- Compressor heating
- Medical & Laboratory devices
- Photo developing
- Leather stretching
- Freeze drying

### PLEASE SPECIFY

- Foil length
- Foil width
- Foil temperature rating
- Foil thickness
- Heater pattern
- Voltage



- Wattage
- Dielectric requirement
- Lead wire type & location (Teflon, Silicone, Kapton, etc.)
- Lead strip length
- Lead required connector
- Lead lengths
- Quantity
- Delivery Timing

### OPTIONS

- SJO Power Cords
- Thermostats
- Thermo-cutoffs
- RTD/Thermistors
- Pressure sensitive adhesive
- Cut-outs and custom shapes
- External lead termination
- Installation options

### DIMENSIONS

48" x 96"

Contact JenTer for larger sizes

### THICKNESS

3/16" – 7/32"

### TYPICAL TEMPERATURE RANGES

Acrylic: - 40°C to 150°C

(- 40°F to 302°F)

Silicone: - 65°C to 316°C

(- 85°F to 600°F)

### MAX VOLTAGE

600 Volts

### DIELECTRIC STRENGTH

Standards – 1200 & 1500 VAC

Maximum – 2800 VAC

### WATT DENSITY

Dependent on element style and application

### WATTAGE TOLERANCE

± 5 % based off nominal resistance

### LEADWIRE LENGTH

Custom to requirements

### TYPICAL DIMENSIONAL TOLERANCE

Less than 12" ± 0.062"

Up to 36" ± 0.125"

Beyond 36" ± 0.250