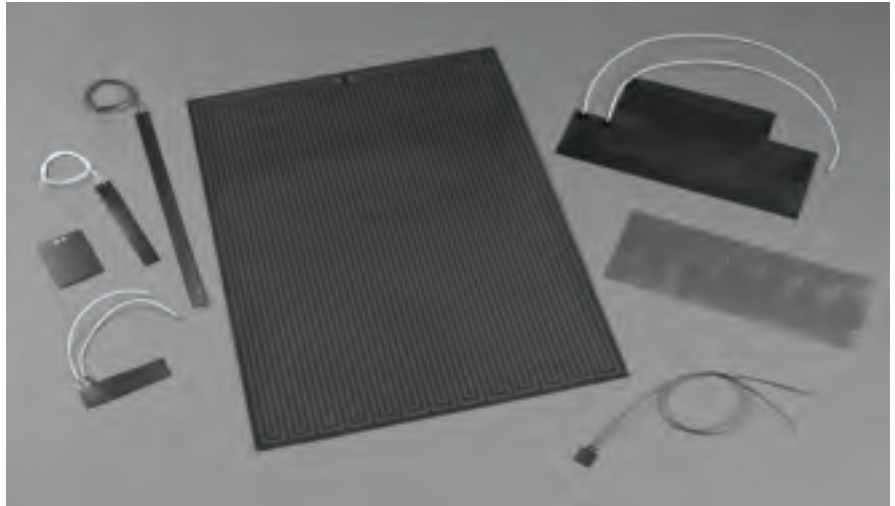


## KAPTON® FLEX HEATERS

Kapton® flexible heaters offer superior tensile strength and tear resistance with precision heat distribution. They are ideal for extreme temperature environments. Kapton® is an organic polymer with very high dielectric capabilities, while providing



superior resistance to most solvents, oils, even radiation. For temperature control on Kapton® heaters, Durex recommends an RTD or thermocouple. Sensors are mounted to the surface of the heater and send a resistance measurement to an external controller that cycles the heater at a set temperature.

### FEATURES:

- Operate in extreme temperatures: -319°F to +500°F (-195°C to +260°C)
- Thickness can range from 0.006" to 0.012" (.0002 to .0004mm), and up to 16" x 29" (475 mm x 660 mm)
- Watt density of 5 W/in<sup>2</sup> (0.8 W/cm<sup>2</sup>) standard with units available up to 50 W/in<sup>2</sup> (7.8 W/cm<sup>2</sup>)
- Transparent Kapton® film allows easy visual inspection on the internal structures
- Etched foil heating elements
- Kapton®, Teflon®, or Silicone leads are available

### TYPICAL APPLICATIONS:

- Vacuum Chambers
- Incubators
- Shrink Film Packaging
- Semiconductor Processing
- Telcom Packaging
- ATM's
- Platen Heating
- Laser Printing
- Autoclaves



## KAPTON® FLEX HEATERS

### MOUNTING OPTIONS

#### Pressure Sensitive Adhesive:

PSA is the most common option for mounting Kapton® heaters. By selecting proper materials, including the release agent, you can promote a strong bond and effective heat transfer.

#### Clamping:

Kapton® heaters can also be clamped to their heating surface. A pressure plate is then fastened in place. To ensure even distribution of heat, and to protect the heater, a pressure pad or insulation layer is advised. The work surface should be free of any debris, dirt, chemicals, bumps, or grooves. This will protect the heater as well as prevent overheating.

#### Self-Fusing Tape:

When mounting to a smooth cylindrical surface, Kapton® heaters can be mounted with self-fusing tape. This will provide a safe operation and even transfer of heat.

### SPECIFICATIONS

- **Sizes:** up to 16" x 29"
- **Standard Thickness:** .007" in
- **Maximum Watt Density:** 50 W/in<sup>2</sup>  
(depending on application)
- **Standard Maximum Resistance Density:** 100 ohms/in<sup>2</sup>
- **Standard Dimensional Tolerances:** Less than 12" ± .062 , Greater than 12" ± .125
- **Maximum Operating Temperature:** 500°F (260°C)
- **Minimum Operating Temperature:** -319°F (-195°C)
- **Wattage Tolerance:** ±10%
- **Dielectric Strength:** 1000 VAC