



NATIONAL PLASTIC HEATER

Call Toll Free 1-877-674-9744

KAPTON®/SILICONE RUBBER FLEXIBLE HEATERS

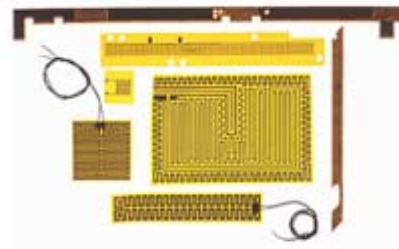
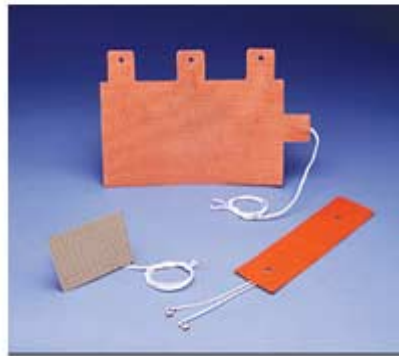
Custom flexible heaters of Kapton® or silicone rubber are engineered and designed by National Plastic Heater with profiles ranging from .006"-.055" (.0002-.002mm).

These heaters are chemical resistant and can be mounted to the application surface with PSA or RTV. The heaters can conform to most any cylindrical or flat surface, providing rapid response and superior heat uniformity.

For applications that require the thinnest profile possible, Kapton insulated heaters can be manufactured that range in thickness from .006"—.012" (.0002--.0004mm). This design utilizes an etched foil resistor bonded between two layers of Kapton. There are two temperature ranges within the Kapton line: FEP bonds and Acrylic bonds. FEP bonds have a temperature range of 500°F (257°C) and Acrylic bonds are capable of reaching 250°F (125°C). These offer many of the same benefits of the silicone rubber heater, but with a faster heat response.

The silicone rubber design is ideal for applications where watt densities are kept to 5W/in² (0.8W/cm²) or where temperatures will not exceed 450°F (235°C).

The body of the heater is reinforced with a visible fiberglass mesh to provide excellent durability. A variety of termination options are available to make these heaters a cost-effective solution for most low temperature applications.



Kapton®--available standard transparent or with Neoprene, Mica or Mylar sheaths



Kapton and silicone rubber heaters are extremely versatile and operate efficiently in many environments.

Some distinct advantages are:

- Moisture resistance
- Oil and solvent resistance
- Chemical resistance
- Outdoor exposure
- Extremely thin profiles
- Conform to almost any shape

All heaters are built to order, but rush delivery is available. In most cases, NPH can deliver custom heaters within 48 hours.

All NPH flexible heaters are available with custom design modification.

Shown here are various styles, sizes and leadwire extensions available from NPH on its lines of Kapton® and SR flexible heaters. Many types are in stock and custom designs are welcome. Please contact us with your requirements.

CUSTOM KAPTON®/SILICONE RUBBER FLEXIBLE HEATERS

Applications for these products

include all the following...

and many more!

- Autoclaves and incubators
- Vacuum chambers
- Medical imaging
- Fluid line freeze protection
- Outdoor electric boxes
- Aerospace instrumentation – satellites/spacecraft
- Semicon water processing
- Heating of electronic components – ATMS, photocopiers

Maximum Dimensions:

36" x 120"

Contact NPH for longer lengths

Thickness:

.006" — .055"

Termination area will be slightly larger

Temperature Range:

-60°F to 450°F

-50°C to 230°C

Max Voltage:

600 Volts

Dielectric Strength:

1000VAC

Watt Density:

5 Watts per in/sq

typical

60 Watts per in/sq

Dependent on application

Wattage Tolerance:

+5% — -10%

Leadwire:

12" Teflon standard

Dimensional Tolerance:

Less than 12" ± .062

Greater than 12" ± .125

**Kapton® is a registered trademark of E.I. du Pont de Nemours and Company



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