

# Technical Datasheet

## Silicone Rubber Insulated Heating Elements

- Custom Design
- Etch Foil and Wire Wound Technology
- Precise Even Heating
- Flexible and Lightweight
- Moisture and Chemical Resistant
- Wide Temperature Range -60 to 230°C
- UL and VDE Approval available
- Low Smoke and Low Toxicity options available
- Full Design and Manufacturing Service

### Physical Characteristics:

- Weather & Ageing resistance – Very Good
- Ozone resistance – Very good
- Gas Permeability – Adequate
- Steam Resistance – Good:  
up to 130°C or 2.5 bar
- Fungus & Bacteria Resistance- Very Good
- Combustibility-Variou Flame retarding materials available
- Good Resistance to – Acetone, Alcohol, Formic Acid, Brake Fluid, Chlordihenyl, Acetic Acid, Greases, Polar Solvents, Hydrchloric Acid 10%, Sulphuric Acid 10%, Waxes, Plasticisers
- Thermal Conductivity-Watt/Meter/K 0.22
- Specific Heat- Joule/Kg/K 1623

### Applications:

Silicone rubber is ideally suited for the production of heater mats with it's low thermal mass and superb electrical insulation properties, it allows high power densities with fast response to temperature control. With silicones wide temperature range tolerance of -60°C to 230°C, being thin and lightweight it has a distinct advantage over other forms of heating elements. Where direct precise and intimate heating is required silicone heaters are the ideal solution.

### Wire Wound:

Using evenly spaced resistance wires laminated between sheets of silicone, wire wound mats are ideal for prototyping or problem solving applications. Manufactured to customer specifications they can be made in a limitless range of shapes and sizes. High flexibility can be obtained using tough, robust materials which are finding ever increasing applications in industries.

### Etch Foil:

Computer designed chemically etched foil tracks are laminated between thin sheets of silicone to give precise even heating. Suitable for both low and high volume production Etched foil heaters have rapid heat up properties with precise temperature control. Available in a limitless range to customer specification etch foil heaters provide heating solutions in a multiple of industries.

Type:	H/SR= Silicone Rubber
	H/SR-A=Silicone Rubber Adhesive
Dimensions:	Width 940mm maximum
	Length 3000mm maximum
	Nominal Thickness H/SR 0.7mm-3.0mm
	H/SR-A 0.8mm-3.0mm
Construction:	Two ply woven glass textile reinforced silicone rubber
Temperature:	H/SR -60°C to +200°C maximum continuous 230°C short term
	H/SR-A -20°C to +180°C maximum continuous 230°C short term

### Installation & Fixing:

Our self adhesive option is a quick and simple fixing method which provides superb bonding results to many surfaces including low energy materials. Where removal of the heater is necessary alternative fixings are available such as hooks and straps as well as Velcro and magnetic backed options. Most mechanical fixing methods can be accommodated.



ISO 9001:2008  
FM 558985



UL and VDE approved manufacturing facilities