

hotform[®]

Silicon Heating Elements

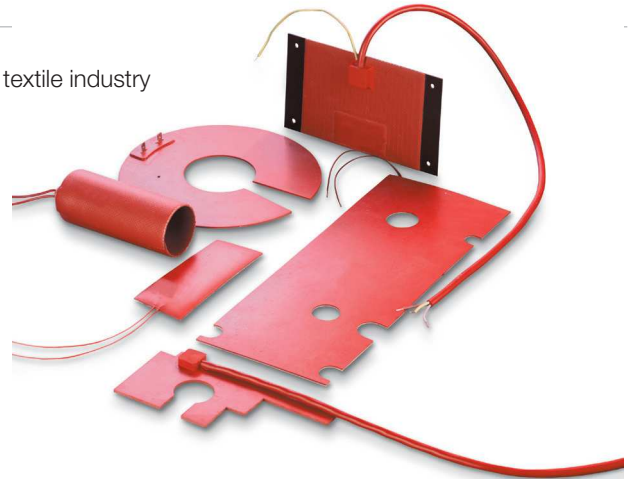
- Used to heat hydraulic cylinders in machinery for the packaging and textile industry
- Can be used for cabinet heating
- Flat or cylindrical shapes possible
- Can be built into small spaces
- Can be cut to individual requirements for asymmetric surfaces
- Resistant against chemicals
- Age proof and resistant against atmospheric corrosion
- Safe in a food environment

Technical Features

Power Density	see table
Thickness of Material	1.5... 5 mm
Max. Heated Area	2.5 m ²
Bending Radius	50 mm
Wattage Tolerance	± 10%
Connection	Silicon, flat vulcanized
Temperature Resistance	-60 ... +200 °C / -76 ... +392 °F max. 300 °C / 572 °F short-term
Heat Conductivity at + 100°C	ca. 15 x 10 ⁻⁴ $\frac{W}{cm \times K}$
Dielectric Strength	12 KV/mm $\frac{W}{cm \times K}$
Standards	VDE 0700 Part 1, DIN EN 60335

Options

- Operating Voltage up to 750 V
- Smaller Bending Radius
- UL Approval

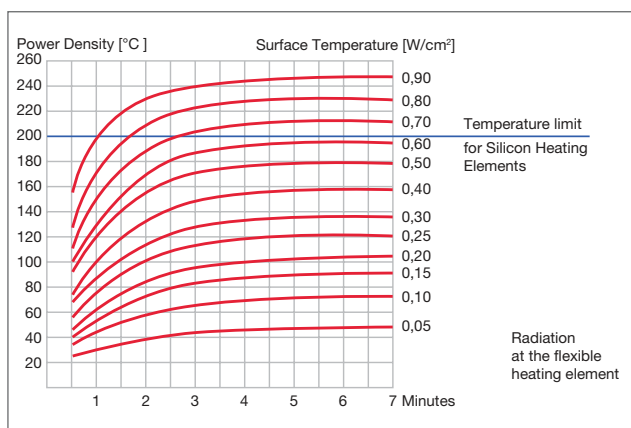


Connection Options

- Single insulated connection wires
- Double insulated connection wires
- Single insulated double leads
- Connection leads with/without mechanical protection
- Connection leads with a looped protective conductor for metalwork
- Flat plugs
- With strain relief and bend protection

Types of Fastening	Connecting Parts	Mounting Surface	Temp. Range	Installation Notes
Vulcanite	Aluminium, stainless steel, steel, metal	Any	-60 ... +200 °C -76 ... +392 °F	Factory connection
Equipped with Self-Adhesive	Metal, composite ceramic, glass, wood	Flat, cylindrical	0 ... +150 °C 32 ... +302 °F	Clean and degrease adhesive surface. Stick on with light pressure and ensure there are no air bubbles. Ready for immediate use.
Silicon Cold-Vulcanite	Metal, composite ceramic	Any	-60 ... +180 °C -76 ... +356 °F	Clean and degrease adhesive surface. Prime if applicable. Coat both sides with adhesive. Apply ensuring there are no air bubbles. Cure for 24 hrs with pressure at room temperature.
Press using pressure plates	Any	Flat	-60 ... +200 °C -76 ... +392 °F	Place hotform between the functional part and pressure plates. Alternatively, vulcanize.
Stretch using tension springs or laces	Any	Cylindrical	-60 ... +200 °C -76 ... +392 °F	Easy installation and quick to change.

Power Density and Surface Temperature



Flat hotform element, horizontal test position, environmental temperature 20 °C / 68 °F

Power Density [W/cm ²]	Surface temp [°C/°F]	Power Density [W/cm ²]	Surface temp [°C/°F]
0.050	40 / 104	0.750	238 / 460
0.075	60 / 140	0.800	247 / 477
0.100	70 / 158	0.850	253 / 487
0.125	80 / 176	0.900	259 / 498
0.150	90 / 194	0.950	265 / 509
0.200	105 / 221	1.000	270 / 518
0.250	121 / 250	1.100	280 / 536
0.300	135 / 275	1.200	290 / 554
0.350	150 / 302	1.300	300 / 572
0.400	164 / 327	1.400	310 / 590
0.450	176 / 349	1.500	320 / 608
0.500	188 / 370	1.600	330 / 626
0.550	200 / 392	1.700	340 / 644
0.600	210 / 410	1.800	350 / 662
0.650	220 / 428	1.900	360 / 680
0.700	230 / 446	2.000	370 / 698