

hotform

Silicone heating elements

Flexible panel heating mats for antenna technology and telecommunications



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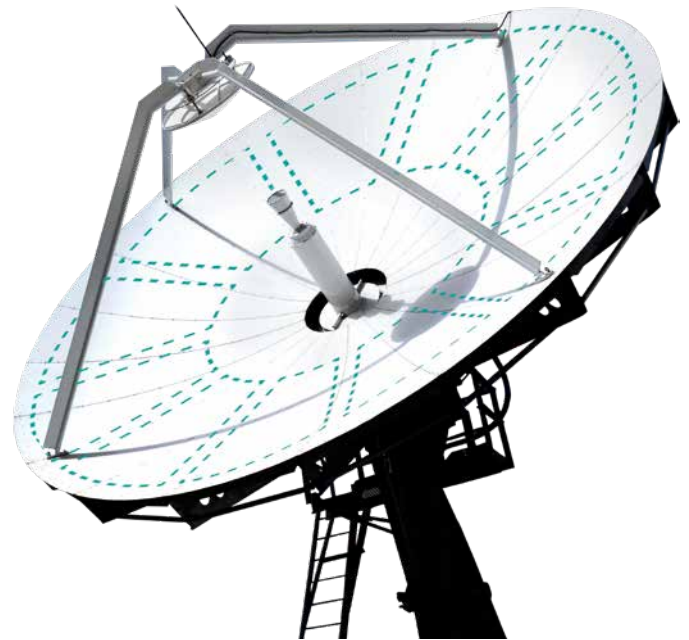
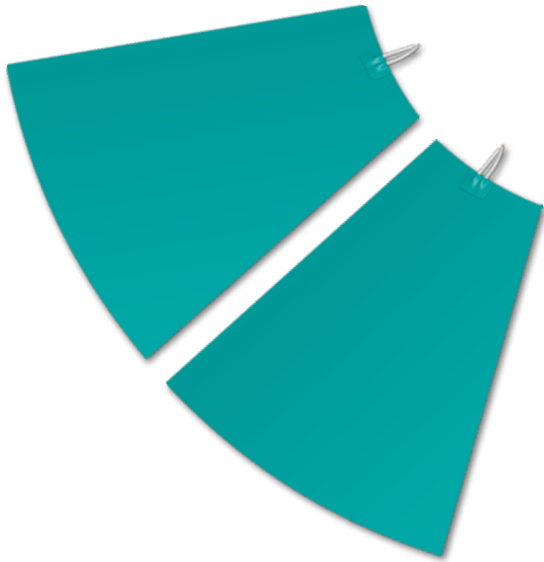
Flexible panel heating mats for antenna technology and telecommunications

Components and Systems

Heating elements, thermal sensors and process control – hotset is your partner for the realization of intelligent product and service solutions in the field of industrial heat technology. Based on our international presence and our own production sites, we operate as a component supplier and development service provider for customers in all industries.

We supply you with components for your series production, we implement complex system solutions for you or we take over entire value chains: your requirements, your goals and your wishes always form the centre of our actions. You benefit from flexible production and logistics structures, an interdisciplinary engineering and over four decades of technology experience.

hotset – components. systems. projects.



Flexible panel heating mats for antenna technology and telecommunications

With our hotform silicone heating elements you receive a highly efficient and responsive universal solution for surface tempering in antenna technology and telecommunications. Innovative heat conductor geometry and highly thermally conductive special silicone guarantee fast heat transfer and homogeneous heat distribution.

Whether parabolic antenna, flat antenna, panel or rod antenna, whether installed stationary or as a mobile tracking system: hotform silicone heating elements can be used to defrost and heat planar, round, concave and convex surfaces of all antenna types. hotform silicone elements are ultra-flat, lightweight and flexible, and designed for temperatures from -60 °C to $+270\text{ °C}$. They are also suitable for integration in housings and bowls, spotlights or sandwich constructions. Size and design can be individually adapted to your specific application at any time.

Our hotform silicone heating elements are available as ready-to-install system components.

hotform silicone heating elements can be used for almost all types of radio, TV, radio or satellite antennas both indoors and outdoors. They can be used as a stand-alone solution, as a built-in component or as an intermediate layer in sandwich and multilayer systems (e.g. glass fibre mats). Depending on the objective, they are used in antenna technology for defrosting (anti-icing) or for heating dishes, reflectors, radiators or housings.

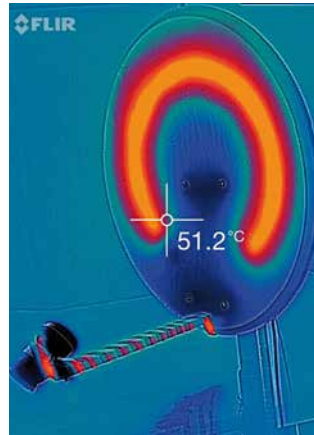
hotform silicone heating elements guarantee the functional and operational safety of the antennas and minimize the effort for their maintenance and repair. They can be controlled with a high degree of control accuracy in terms of time and temperature.



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Advantages

- Special silicone with high thermal conductivity
- Innovative winding of heat conductor
- Very fast heat transfer
- Excellent heat distribution (maximum homogeneity)
- High energy efficiency
- Temperature resistance from -60 °C to +270 °C
- Light and ultra-flat (up to 0.4 mm)
- Easy, flexible installation
- Minimum installation effort
- High control accuracy, short response time
- Suitable for flat, round, concave and convex surfaces
- UV-resistant
- High weather resistance
- EN 45545-compliant (fire, smoke)
- Waterproof to IP 67
- Easy integration in multilayer and sandwich constructions
- Ready-to-install delivery as mats, bands or molded parts



Thermography –
Homogenic heat distribution

Options

- Direct current
- Power cord
- Temperature sensor
- Security limiter
- Thermostat
- Color selection for bulk orders
- Silicone foam

Connection Leads

- Silicone leads -> max. Temp: 180 °C / 356 °F
- FEP leads -> max. Temp: 200 °C / 392 °F
- PFA leads -> max. Temp: 260 °C / 500 °F

Fixation method

- Mechanical (springs, velcro)
- Standard adhesive (up to 160 °C)
- Special adhesive (up to 220 °C)
- Adhesive, reusable

Technical Features

Size	Max. 1840 x 580 mm, special sizes available on request
Tolerance	± 1 mm
Thickness of Material	Min. 0.4 mm, 1 mm Standard
Thickness of Material - Tolerances	± 0.1 mm
Bending Radius	10 mm
Voltage	12 up to 400 V
Power density	Up to 5 W/cm ²
Wattage Tolerance	± 10 %
Temperature Resistance	-60...+200 °C / -76...+392 °F (up to 270 °C / 518 °F on request)
Thermal conductivity at +100°C	1 W/m K
High voltage test	1500V AC
Standards	UL (on request) EN 45545 (Maximum classi- fication for fire and smoke) EN 50264 and EN 50306 (for rail vehicles) FDA IP67



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