friedr. freek GmbH

Silicone Heater Mats

Flexible heating elements made from silicone or Kapton insulation are thin and lightweight so can be installed where space is limited, and due to their low mass they have a fast response to temperature control. The self-adhesive foil option allows for a quick and uncomplicated fixing. The operating temperatures range from -60°C to 200°C (180°C with adhesive backing).

Almost any shape is possible, as are individual power distributions and the installation of various sensors and temperature switches. These heating elements are bespoke manufactured to customer specifications, whether 1 or 1000 pieces.

If you need heaters that are even thinner and more resistant to chemicals, you should choose Kapton instead of silicone.

We design and produce the right heater for your application		
	Silicone	Kapton
Max. operating temperature	200°C	200°C
Max. operating temperature with self-adhesive	180°C	180°C
Recommended max. watt density	0,8 W/cm²	2 W/cm²
Max. dimension	3000 x 950 mm	550 x 285 mm
Min. dimension	30 x 30 mm	25 x 25 mm
Min. height	0,8 mm	0,2 mm
Dimension tolerance	±1 mm	±1 mm
Batch volume	from 1 piece	from 1 piece
Min. bending radius	15 mm	1 mm
Max. IP-rating	IP 65	IP 64
Self-adhesive foil possible	yes	yes
UL possible	yes	no

Applications in the plastics industry

Preheating Station / Heating Plates

- Easy attachment to existing sheets or plates due to self-adhesive foil
- Easy to clean with water or isopropyl alcohol
- With direct control continuous operation up to 200°C

Granulate Dryer

- Heaters can be produced in funnel shape, direct bonding possible
- Optionally with thermal insulation on the outside (PU or silicone foam)

Blister Packaging Machines

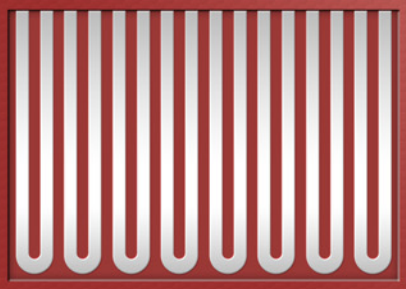
- Direct contact with foil or cardboard possible
- IP 65 - Cleaning with water / cleaning agent possible

Hot Presses

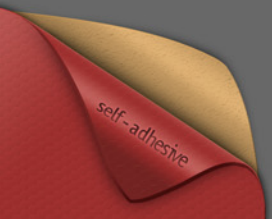
- Direct application to the press plate
- Low weight - fast heating - low energy consumption

3D Printer

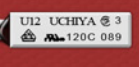
- Adaptable to any print bed geometry
- Homogeneous temperature profile due to even heat transfer



10 Advantages



+ Low weight
+ Easy installation
+ Moisture proof
+ Easy cleaning
+ Minimum space requirement
+ Integrated temperature sensors
+ Integrated temperature switches / fuses
+ From single pieces to large series
+ Every shape possible
+ Short heat up times



Contact

Friedr. Freek GmbH

Sudetenstraße 9

D-58708 Menden/Sauerland

Tel +49 2373 9590-0

Fax +49 2373 9590-30

mail@freek.de

www.freek.de

Mareike Blaak
m.blaak@freek.de

Stefan Düllmann
s.duellmann@freek.de