SILICONE BLANKET FOR PRESS HEATING

PAULISTA HEATERS

ELECTRIC HEATING SYSTEM

Summary

Silicone Heater Blanket for Press

1- Product Specifications

- ✓ Voltage: 110V, 220V, 380V, 440V or other.
- ✓ Working temperature: up to 250ºC (482ºF).
- ✓ We manufacture thermal blankets for single-phase, two-phase, or three-phase machines.
- ✓ Used for heating small or large format presses.
- ✓ We manufacture custom-made presses for various shapes (rectangular, circular, for sublimation mugs, etc.).
- ✓ We manufacture using either 30 Shore silicone (softer) or 70 Shore silicone (harder).
- ✓ Ideal for vulcanization, sublimation, plywood manufacturing processes, etc.
- ✓ It comes with a J, K, PT100, NI120, PTC or other type temperature sensor.
- ✓ We have options for classified EX areas.

2- Description of the product structure

Description	Technical Details
The silicone heating blanket is made with silicone reinforced with fiberglass fabric, resistive wire, with internal and external cabling according to electrical current, with a sensor for temperature control, electrical terminals, fixed by sandwich mounting or by screws on the press platen	Working temperature: From -40ºC (-104ºF) to +250ºC (482ºF) (withstands peaks of -90ºC (194ºF) and +300ºC (572ºF) for short periods of time)
	Weight capacity: up to 3kg/cm²
	Electrical insulation: 20KV
	Silicone hardness: 30 + 5 shore (soft) or 70 + 5 shore (hard)
	The thermal blanket can be mounted on the press platen using a sandwich fastening system or screws.
	Teflon cable with silicone fiberglass tubing – withstands up to 260ºC (500ºF) – Voltage: up to 600V
	Direct or alternating current power supply

Electrical Terminals:

Heating blankets for presses are supplied with electrical terminals for connection to the machine's temperature controller, which can be tubular, a black connector, or another type depending on the customer's needs.

Fastening system:

The silicone heating blanket for heat presses is fixed to the platen using screws or in a sandwich assembly between two plates. Other fixing methods require evaluation by the technical department for adaptation of the heating blanket.

Temperature controller:

Heating blankets for heat presses come only with a temperature sensor to be connected to the customer's machine controller. The temperature sensors commonly used are: J, K, PT100, NI 120 and PTC (we can use other models as needed). We offer sensors already installed on the blanket to control its temperature or with a bulb to control the temperature of the press platen.

No temperature control

We can also offer the heating blanket without any type of controller (not recommended for heating blankets with high dissipation above 0.7 w/cm² or processes with greater technical complexity).

3- Instruction manual:

How to use

1. Install the silicone heating blanket on the press platen using the appropriate fastening system.
2. During assembly, the blanket should not be forcibly fastened, nor should it be stretched, folded, punctured, or cut.
3. Connect the heating pad and its sensor to the temperature controller.
4. Check the voltage of the electrical network where the silicone heating pad will be connected. If connected to a lower voltage, it will heat up little, and if connected to a higher voltage, it will burn out.
5. In the case of a digital panel, especially during first use, do not change the temperature on the controller; wait for the controller to complete its learning period. At the end, the TUNE light will turn off and the green lights will flash; this is normal for the product. Only after the learning process is complete, set the temperature up to 100°C, and if necessary, increase it by 20°C every 20 minutes to allow for proper heating.
6. Wait for the silicone heating pad to reach the desired temperature before proceeding with your vulcanization or sublimation process.

Recommendations:

- Do not use the heating blanket above its design temperature. It can operate continuously up to 250ºC (482ºF) with peaks of 300ºC (572ºF).
- Metal containers can withstand high temperatures, but plastic containers can only withstand a

maximum of 90ºC, and cardboard containers can only withstand a maximum of 50ºC (if placed above that, they will puncture).

- For high heat dissipation heating mats (above 0.7 W/cm²), it is recommended to always use them with heat exchange on both sides, otherwise there is a risk of burning.
- Store and transport the heating blanket correctly: do not fold, stretch, kick or throw it, as this may damage the resistive elements and internal components of the controllers.
- Use rubber gloves to avoid static electricity shock; this shock does not pose a danger to humans, only a discomfort.
- Do not move the heating blanket while it is heated or heating up, as this may damage the resistive elements.
- Do not puncture, cut, or immerse the heating pad in liquid; this may cause a short circuit.
- The heating blanket may release gases from its internal components during the initial heating cycles (especially at high temperatures, above 150ºC).
- Cleaning should only be done with the heating pad de-energized, using a clean cloth and alcohol.
- If the heating pad or controller is damaged, discontinue use and notify Paulista Heaters to verify if it is safe to continue using the product, as there may be a risk of electric shock in this case.
- Do not make any modifications to the heating blanket without prior notification and authorization from Paulista Heaters, as failure to inform or approve this will violate the product's legal warranty.

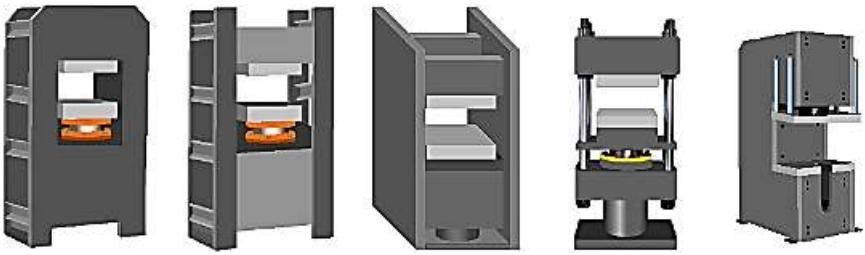
Safety Items:

- ✓ The thermal blanket is fully electrically insulating, resistant to fungi and chemicals.
- ✓ The thermal blanket should be cleaned dry, using a cloth and alcohol.
- ✓ The heating blanket does not attract dirt easily.
- ✓ The heating blanket poses no risk for use in EX-classified areas, as the resistive element is completely sealed.
- ✓ The grounding of the electrical blanket must be done by the customer on their machine.
- ✓ Low or medium dissipation silicone heating mats (up to 0.7W/cm²) will not burn out if switched on without heat exchange at temperatures up to 150°C. However, high dissipation heating mats cannot be switched on without proper heat exchange, as there is a risk of burning out.
- ✓ Do not use the heating blanket if it has bubbles, is punctured, cut, has an exposed resistive element, or is burnt, as there is a risk of electric shock.
- ✓ The heating of the heating mantle on the press platen tends to be more homogeneous compared to other resistance models.
- ✓ The heating blanket is very flexible and durable, able to support the weight of the platforms.
- ✓ It provides a safe heating process for operators, with minimal risk of workplace accidents.

4- Application :

A heating blanket for heat presses is ideal for:

Vulcanization



Sublimation

Plywood Manufacturing

Ideal for use in areas such as:

- ✓ Pharmaceutical industry,
- ✓ Food industry,
- ✓ Chemical industry,
- ✓ Metallurgical industry,
- ✓ Auto repair shop,
- ✓ Laboratory.

We manufacture custom-sized, customized products to best meet your needs.

Registration Data

Company Name

Paulista Heaters co.

Trade Name

Paulista Heaters

CNPJ

44.493.049/0001-07

State Registration

125,354,590,111

DUNS® Number

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