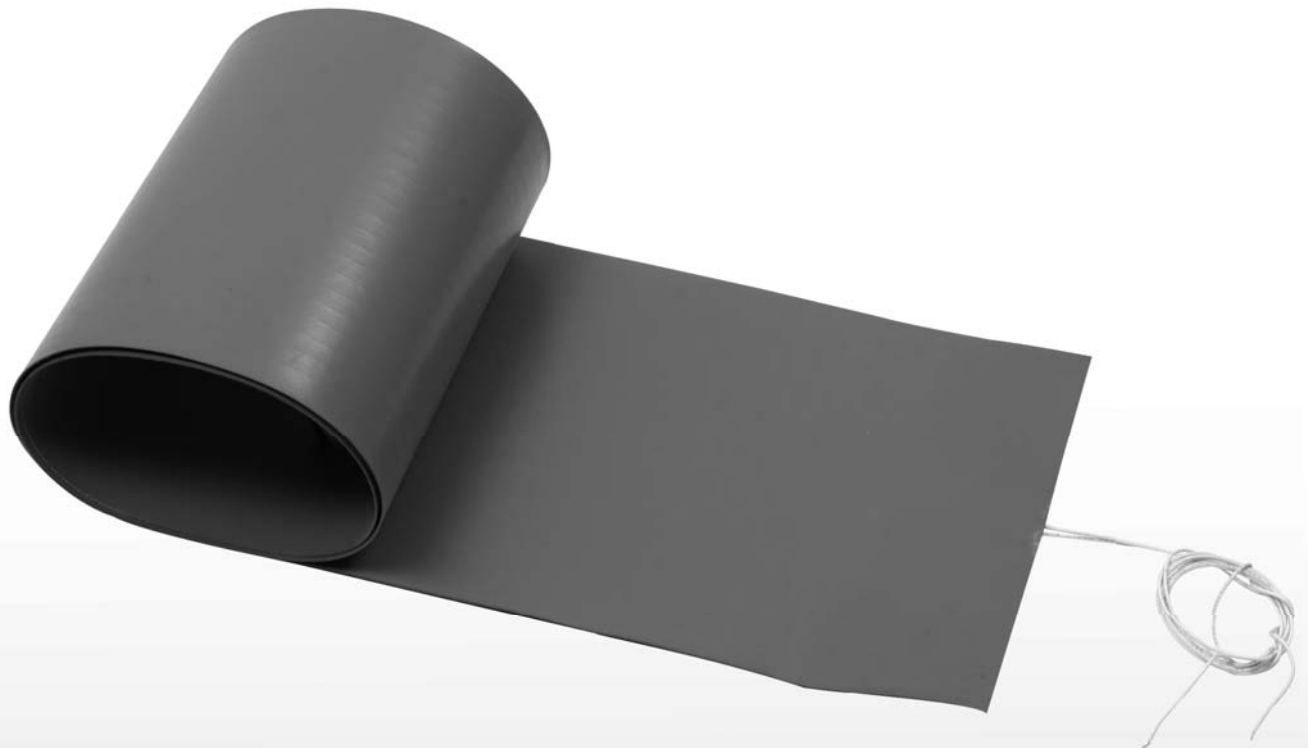


SILICONE HEATERS

component parts



WATTCO™

SILICONE RUBBER HEATERS

OVERVIEW

WATTCO™ silicone rubber heaters are composed of fiberglass enhanced silicone rubbers that are moisture and chemical resistant. Thin and flexible, these heaters are designed to meet the requirements of various low and medium temperature applications that require irregular shapes, sizes, and dimensions.

FEATURES

KEY FEATURES

- Silicone rubber sheets
- Fiberglass grid to reinforce the silicone rubber sheets
- Uniform spiraled resistance wire web to cover heater
 - Web can be designed with holes and cutouts
- Thin layer of aluminum for heaters with a pressure sensitive adhesive backing
- Maximum size: 38" x 98"
- Thickness: 0.060"
- Maximum temperature: 450°F
- Maximum voltage: 480 VAC
- Wattage: +5/-10%
- Regular lead wire: 12" Teflon insulated
- Dielectric strength: 1000 VAC
- PSA back or thermostat available

BENEFITS

- Quick heat transfer
- Moisture and chemical resistant
- Thin
- Flexible
- Solidly built
- Adheres to all surfaces
- CSA and CE certified

SELECTING

WATTCO™ SILICONE RUBBER HEATER

The following sections will help you select the WATTCO™ silicone rubber heater that meets the requirements of your application. Please call us at 1-800-4WATTCO (1-800-492-8826) if you need further assistance.



LEAD WIRE MODELS

WATTCO™ silicone heaters come with lead wire terminations. Two models are currently available: Teflon and silicone lead wires.

Teflon lead wires:

- Placed between the silicone layers
- A little patch is added on the exit point for additional protection

Note: The added patch creates a small bump where the wires are attached. Joining the internal resistance wire and the lead wire can be done with an external tab upon request.

SJO POWER CABLE

For separate use in an industrial application, WATTCO™ silicone heaters can be supplied with power cables that come out of a silicone transition box attached to the heater. Proper electrical plugs are sold with the power cables.

NEED ASSISTANCE?

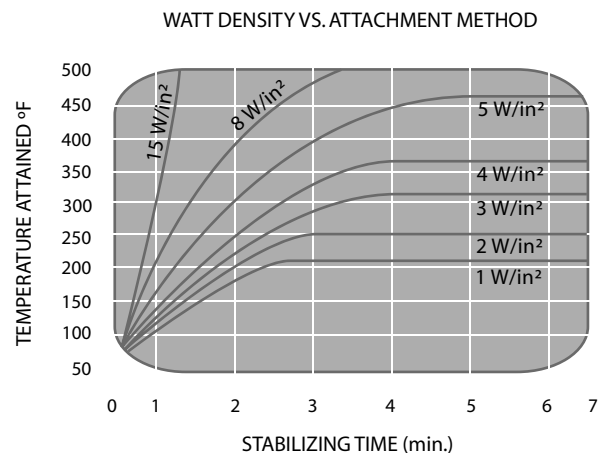
Please call us at 1-800-4WATTCO (1-800-492-8826) if you need further assistance.

Note: WATTCO™ silicone rubber heaters can be designed with pre-set or adjustable thermostats, thermal cutoffs, and external "J" thermocouples with their respective temperature range and amperage capabilities.

WATT DENSITY vs. ATTACHMENT METHOD

The graph below indicates the surface temperature that can be reached by a silicone rubber heater suspended in 70°F air. For applications with a watt density of less than 5 W/in², the temperature will attain and stabilize at below 500°F. Please attach the heater to the surface or use a pressure plate for applications with higher watt density.

FIG. 1 - Watt Density vs. Attachment Method



FASTENING METHODS

RTV ADHESIVES

- For solid attachment to application surfaces, use room temperature adhesive pastes.
- Available in RTV 106 (red) and RTV 116 (transparent).
- RTV 106 and RTV 116 are suitable for high temperatures of up to 500°F.



PRESSURE SENSITIVE ADHESIVES

- Thin layer of adhesive backing for high temperature (300°F).
- Made for all surfaces.
- Include an easy-to-remove protective cover.
- Watt density: 5 W/in² and less if used with a PSA.

FACTORY VULCANIZATION

- The best method to fix a heater to a surface.
- Vulcanization can be used with high temperatures and pressures.
- The method is only available in the factory.

MECHANICAL FASTENERS

- For heaters wrapped around an application, fasteners are attached to the fabrics.
- Standard fasteners:
 - o Eyelets with lacing cords
 - o Velcro hooks and loops
 - o Metallic fasteners with springs
 - o Independent straps

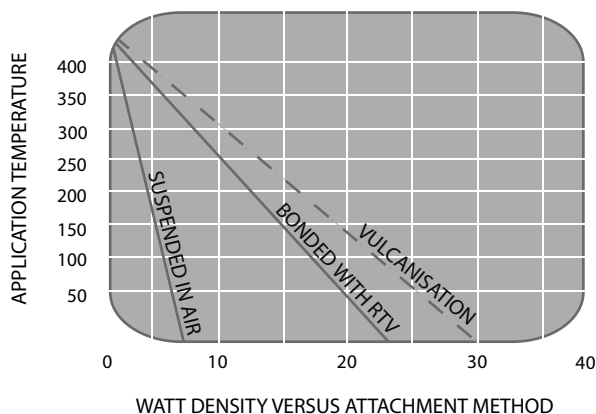


Velcro



Eyelets

FIG. 2 - Graph of Watt Density vs Attachment Methods



Silicone rubber heater

WHEN ORDERING, PLEASE SPECIFY: Material, dimensions, special shapes, wattage, voltage, operating temperature, type of leads and length, thermostat – range or setting, thermocouple, and mounting type (PSA, factory vulcanization, RTV adhesives).

Please call us at 1-800-4WATTCO (1-800-492-8826) for further assistance.

SILICONE BARREL HEATERS

OVERVIEW WATTCO™ silicone barrel heaters are designed to brace a drum and are easy to install and remove. They are primarily used for pre-heating solutions in drums or pails in order to make them more fluid and flowable. Silicone barrel heaters are the ideal solution for heating liquids in pouring, dipping, coating, and mixing applications.

- FEATURES** **KEY FEATURES**
- Silicone rubber shell
 - Fiberglass grid to reinforce the silicone rubber sheets
 - Electrically grounded
 - Electrical resistant wire web and protective metallic grid inserted between the silicone layers included
 - B-200 bimetal thermostat (400°F) included
 - Suitable for 120V or 240V power supplies
 - Excellent material for rough industrial applications

- BENEFITS**
- Moisture and chemical resistant
 - Durable
 - Flexible
 - Solidly built
 - Easy to install and remove
 - Easy to clean
 - CSA certified

SELECTING **WATTCO™ SILICONE BARREL HEATER**

The following sections will help you select the WATTCO™ silicone barrel heater that meets the requirements of your application. Please call us at 1-800-4WATTCO (1-800-492-8826) if you need further assistance.

SIZE	VOLTAGE	WATTAGE	LENGTH	DIAMETER	WIDTH
55 GALLONS	120 or 240	1500	64"	22 1/2"	4"
55 GALLONS	120 or 240	1000	64"	22 1/2"	3"
30 GALLONS	120 or 240	750	54"	18"	3"
15 GALLONS	120 or 240	500	40"	13 1/2"	3"
5 GALLONS	120 or 240	300	31"	11 1/2"	3"

WHEN ORDERING, PLEASE SPECIFY: Material, dimensions, special shapes, wattage, voltage, operating temperature, type of leads and length, thermostat – range or setting. Please call us at 1-800-4WATTCO (1-800-492-8826) for further assistance.



Spring Loaded Fasteners



Power Cable Connection



B-200 Thermostat

HOW TO INSTALL

- Install barrel heaters near the bottom of a vertical barrel.
- For horizontal vessels, install drum heaters to position the terminal box on the side.

ELECTRICAL RATING

- Proper power cords are provided for specific voltage and wattage.
- Rating power supply is required for handling the amps drawn by the heater.

MAINTENANCE GUIDELINES

- Silicone barrel heaters are not waterproof.
- Use silicone barrel heaters only for indoor applications in order to prevent water leaking into the thermostat box.
- Although maintenance free, it is recommended that regular maintenance be scheduled in order to make sure that the heater is safely fastened to the barrel.
- The power cord can withstand 220°F and must be kept away from the heater.

WARNING

Do not use on pressure tight containers, containers with explosive materials or in explosive conditions.