

# Wire-wound Rubber Heaters

220° C



## Overview

These silicone rubber heaters have a wire-wound element and are economical in large sizes.

- Mean time between failure (MTBF) of 100,000 hours+ provides longer heater life under continuous operation
- Rugged construction and high ductility allows repeated flexing for easier installation
- Element wires sealed inside silicone rubber protects electrical connections from moisture preventing costly downtime for field repairs
- Uniform heating to 220°C (428°F)
- Lengths to 70" (1.8 m)
- Mount to flat or curved surfaces
- TÜV and UL component recognition marking are standard
- 2.5, 5, 10, 15 watts/in<sup>2</sup> at 120 or 240 VAC
- Lower leakage current due to capacitive coupling

## Typical applications

- Prevent condensation in motors and generators
- Protect instrument cabinets from cold and humidity
- De-icing
- Control fluid viscosity in valves and vessels
- Industrial ovens and thermal processing equipment
- Platens
- Medical devices

## Custom options

- Custom shapes and sizes to 22 × 72" (560 × 1825 mm)
- Custom resistance to 200 W/in<sup>2</sup> (31 W/cm<sup>2</sup>)
- Integral thermostats
- Contact E2E for custom design assistance

Minco's heater configurator  
and online ordering —

[www.minco.com/heater\\_config/](http://www.minco.com/heater_config/)

# Wire-wound Rubber Heaters

## Specifications

**Temperature range:** -45 to 220°C (-50 to 428°F).

**Thickness:** 0.055" ±0.005" (1.4 ±0.13 mm). 0.250" (6.4 mm) maximum over leadwires.

**Maximum voltage rating:** UL rating is 600 VAC, TÜV recognition up to 250 VAC.

**Leadwires:** AWG 20 except where noted, PTFE insulated per UL 1199/CSA. Length on standard models is 12" (305 mm). Current capacity (based on 100°C max. ambient temp.):

AWG 20 13.5 A  
AWG 18 16.0 A

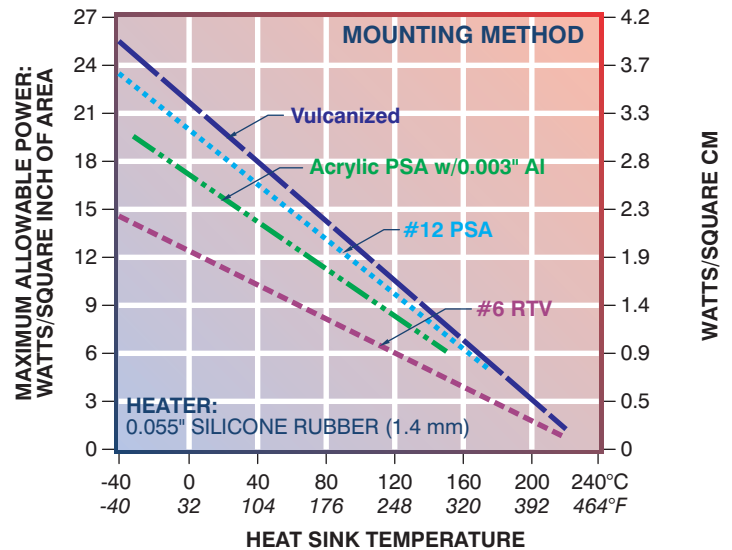
**Approvals:** All wire-wound models comply with UL Standard 499 and Canadian Standard C22.2, No. 72-M1984 and European Standard EN60335 and may bear the corresponding recognition marks.

**Wattage tolerance:** ±5%.

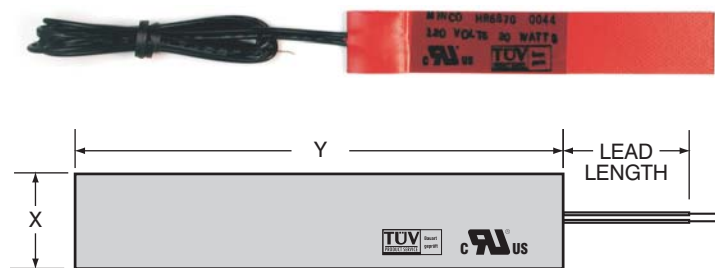
**Maximum size (custom):** 22 × 72" (560 × 1825 mm).

**Maximum resistance density (custom):** 200 Ω/in<sup>2</sup> (31 Ω/cm<sup>2</sup>).

Maximum Watt Density, Rubber Heaters



Example: At 100°C, the maximum power of a heater mounted with #6 RTV is 7 W/in<sup>2</sup>.



**Worldwide Headquarters**  
7300 Commerce Lane  
Minneapolis, MN 55432 USA  
Tel: 1.763.571.3121  
Fax: 1.763.571.0927  
sales@minco.com  
www.minco.com

**European Headquarters**  
Usine et Service  
Commercial, Z.I.  
09310 Aston, France  
Tel: (33) 5 61 03 24 01  
Fax: (33) 5 61 03 24 09

**Asia Pacific Headquarters**  
20 Science Park Road  
#02-31 Teletech Park  
Singapore Science Park II  
Singapore 117674  
Tel: (65) 6511 3388  
Fax: (65) 6511 3399

ISO 9001:2000 / AS9100B  
HWR01052606R0  
© Minco 2006



Flex Circuits  
Thermofoil™ Heaters  
Sensors  
Instruments