



### Setup details

Unistat® 610w & Radleys reactor

Temperature range:	-60...200 °C
Cooling power:	7.0 kW @ 200...0 °C 6.4 kW @ -20 °C 3.3 kW @ -40 °C 0.8 kW @ -60 °C
Heating power:	6.0 kW
Hoses:	2x1.5 m; M30x1.5 (#6386)
HTF:	DW-Therm (#6479)
Reactor:	10-litre jacketed glass reactor
Reactor content:	7.5 litre M90.055.03 (#6259)
Stirrer speed:	80 rpm
Control:	process

## Unistat® 610w

### Heating and cooling a Radleys 10-litre jacketed glass reactor

#### Requirement

This case study shows the temperature profile of a Unistat 610w heating and cooling a Radleys 10-litre glass reactor between 20 °C and 100 °C.

#### Method

The reactor and Unistat are connected with two M30x1.5 insulated metal hoses. The reactor is filled with 7.5 litre of "M90.055.03", a Huber supplied silicon based HTF.

#### Results

The Unistat 610w takes 28 minutes to heat the 10-litre glass reactor from 20 °C to 100 °C. This is an average heating rate of 2.9 K/min, as can be seen on the process temperature curve. Cooling the process between the same temperature range occurs at an average rate of 3.5 K/min.

