



Unistat® 910w

Minimum and maximum temperature with a Radleys 10-litre glass reactor

Requirement

The graphic shows the performance of a Unistat 910w working within its minimum and maximum temperature range when working with DW-Therm as an HTF. The minimum temperature is set to -90 °C but the maximum temperature is limited to 200 °C.

Method

The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 7.5 litre of "M90.055.03", a Huber supplied silicon based HTF.

Results

The internal temperature jumps quickly to approximately -63 °C in 11 minutes and regulates the process temperature towards the setpoint. It reaches -80 °C after 2 hours and the ΔT difference is only 3 K.

With a heating power of 6 kW the machine brings the internal temperature to 180 °C very

quickly. The temperature difference of 260 K is being ramped at a rate of 5.5 K/min. and completed in 47 minutes.

Setup details

Unistat® 910w & Radleys reactor

Temperature range:	-90...250 °C
Cooling power:	5.2 kW @ 250...-20 °C
	4.7 kW @ -40 °C
	3.1 kW @ -60 °C
	0.9 kW @ -80 °C
Heating power:	6.0 kW
Hoses:	2x 1.5 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:	200 rpm
Control:	internal

