PRESTO® A80t

Cooling a 20 liters reactor from +20 °C to -40 °C

Objective

This case study tests the cooling power of PRESTO® A80t with a 20 liters glass reactor. The PRESTO® A80t is connected to the reactor via two 1 m metal tubings. The PRESTO® A80t is programmed to cool down from +20 °C to -40 °C.

Environment

Room temperature	+20 °C
Humidity	45 %
Voltage	208 V / 60 Hz

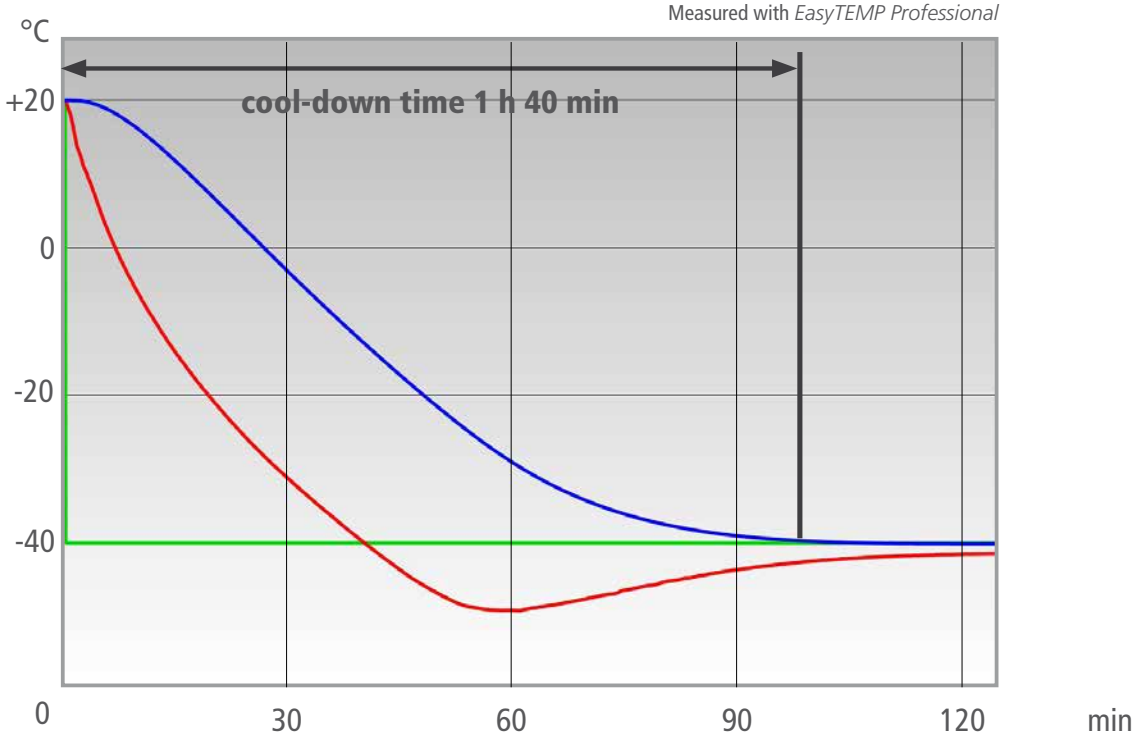
Test Conditions

JULABO unit	PRESTO® A80t
Cooling power	+20 °C 1.2 kW
	0 °C 1.2 kW
	-20 °C 1.1 kW
Heating capacity	3.4 kW
Band limit	with
Flow pressure	0.5 bar
Bath fluid	Thermal HL 80
Reactor	20 l glass reactor (Chemglass) filled with 19 l Ethanol
Jacket volume	8 l
Control	External (ICC)

Test Results

The PRESTO® A80t cooling process from +20 °C to -40 °C in 1 h 40 min without overshoot.

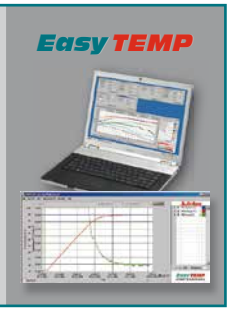
Measured with *EasyTEMP Professional*



Setpoint
Temperature in reactor's interior
Temperature in reactor's jacket

Tip

Use the free of charge *EasyTEMP* software to control the units with the PC and to show the temperature curves graphically.



Tip

Take advantage of our wide range of accessories. The M+R adapter enables you to display and record an additional temperature.