



**Setup details**

Unistat® 830 & Radleys reactor

Temperature range: -85...200 °C  
 Cooling power: 3.6 kW @ 0 °C  
 2.2 kW @ -60 °C  
 3.6 @ 0 °C  
 3.5 @ -20...-40 °C  
 2.2 @ -60 °C  
 0.7 @ -80 °C

Heating power: 3 kW  
 Hoses: 2x1.5 m; M38x1.5 (#6656)  
 HTF: DW-Therm (#6479)  
 Reactor: 10-litre jacketed glass reactor

Reactor contents: 7.5 litre M90.055.03 (#6259)

Reactor stirrer speed: 80 rpm  
 Control: internal

# Unistat® 830

**Cooling the jacket of a Radleys 10-litre reactor to -85 °C**

**Requirement**

The graphic shows a cooling curve from 20 °C to -85 °C connected to a Radleys 10-litre glass reactor.

**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**

This 2-hour test shows that the Unistat 830 can cool the "internal" (jacket) temperature to -85 °C with a resultant process temperature of -76 °C.

