



PortaTherm™ INCUBATOR

A simple, low-cost, electricity-free Incubator



The **PortaTherm™**, is a portable electricity free incubator that exploits this phenomenon of phase-change temperature stability utilizing material with a phase-change temperature of 37°C. The white solid material is sealed inside transparent polythene or plastic packages and heated in a water bath (for example, a pan on an open fire) until melted (the liquid form is transparent), and then allowed to cool until the first indication of cloudiness due to white precipitates of solid material is visible. At this point, the packages are placed in the insulated container (a styrofoam/polystyrene box or commercially available picnic cooler), and if the PortaTherm incubator remains unopened, a temperature of 37°C can be maintained for at least 4 days with adequate insulation.

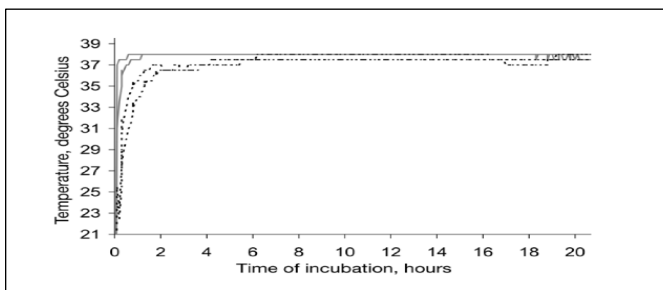


Fig: Incubator result at a glance

OBJECTIVE

To determine whether the PortaTherm can be used for the reliable incubation of water samples use in settings distant from laboratory facilities.



Physical specifications

- Temperature display: In temperature Data logger
- Temperature accuracy:
- Overall dimensions W x D x H (cm): 31 cm x 34 cm x 22 cm
- Internal chamber dimensions W x D x H (cm, in): 10 cm x 10 cm x 10 cm
- Weight: 4 kg (approx.)



Performance specifications

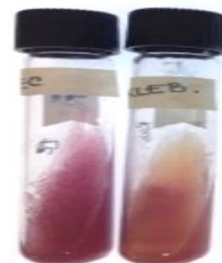
- Temperature: 37 °C
- Time to reach 37 °C: 15 to 25 Minute (depends on environment)
- Amplitude of temperature fluctuation: $\pm 0.5-1$ °C
- Back up : More than 30 hr. and 4 days (PortaTherm incubator remains unopened)
- Capacity: 25 tubes/ cultural plates more than 40

Includes in Packages:

- Insulated Container
- Heating Pad
- Count Up Timer
- Thermometer
- Data Logger



Incubator room (37°C)



Incubator room (37°C)