Email : sales@scilabexport.com
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Product Name :

Calorimeter, Copper

Product Code :

SLE/PHY/144



Science Lab
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Description :

Copper passes heat quickly, so this vessel and the liquid inside it reach a common temperature fast. The copper calorimeter is 100 mm long and 65 mm in diameter,with parallel sides and a rolled rim, which leaves room for a thermometer, a stirrerand a solid sample at once. Physics labs use it for cooling, specific heat and latentheat work. No stirrer is included.

Copper calorimeter vessel specifications

Parameter	Detail
Material	Copper
Shape	Parallel sides, rolled rim
Length	100 mm
Diameter	65 mm
Stirrer	Without stirrer
Product code	SLE/PHY/144
Minimum order	10 units
Dispatch	Usually within 7 to 10 working days
Manufacturer	ScienceLab (Jain Scientific Equipments Pvt Ltd), Ambala, India

Cooling, liquid and steam experiments in the copper vessel

Newton's law of cooling. Fill the vessel with hot water, stand it on an insulating base, and read a digital pocket thermometer every half minute against a digital stopclock. Plot temperature against time. The curve is steep at the start and flattens as the water nears room temperature. The apparatus for Newton's cooling law gives a dedicated set-up for the same study.

Specific heat of a liquid by cooling. Weigh the empty vessel, then weigh it again filled to the same level, first with water and then with the test liquid. Heat each to the same starting temperature and time it through the same fall in temperature. The vessel, its surface and the room stay unchanged, so at each temperature both lose heat at the same rate. Equating the heat lost per second in the two runs gives the specific heat of the liquid.

Latent heat of vaporisation. Weigh the vessel with cold water in it. Pass steam from a boiling flask through a steam trap so that only dry steam bubbles into the water. Stop when the water has warmed by several degrees, then weigh again to find the mass of steam condensed. The heat released as that steam condenses and cools equals the heat taken up by the water and the copper.

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