Email : sales@scilabexport.com
Phone: +91-7082934803

Product Name :

Computerized Thermal Conductivity of Powder

Product Code :

SLE/MCE/72



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Description :

Computerized Thermal Conductivity of Powder (Product Code: SLE/MCE/72) is a concentric-sphere apparatus used to determine the thermal conductivity of an insulating powder in heat transfer laboratories. As lab equipment for technical institutes, it lets mechanical and chemical engineering students measure radial heat flow between a 50 mm and a 100 mm radius copper sphere using ten embedded thermocouples. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Construction	Two thin-wall concentric copper spheres with insulatingpowder packed between the shells
Radius of inner coppersphere	50 mm
Radius of outer coppersphere	100 mm
Heater	Mica type: nichrome wire wound on mica sheet, housed in the inner sphere
Heating power	350 W
Temperature limitation	95 °C
Thermocouples	4 embedded on the inner sphere and 6 on the outer sphere (10 in total)
Heater supply and measurement	Supplied through a dimmer stat; measured by voltmeter and ammeter
Test medium	Commercially available insulating powder packed between the two spheres (confirm the powder type with your quotation)
Measuring range – temperature	2 × 0–325 °C
Measuring range – heating power	0–450 W
Power supply options	230 V, 50 Hz, 1 phase; 230 V, 60 Hz, 1 phase; or 120 V, 60 Hz, 1 phase
Product code	SLE/MCE/72
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Thermal Conductivity of Powder Apparatus Used For?

Heat produced by the coil inside the inner sphere can only escape outwards through the powder layer, so once temperatures are steady the electrical input (from the voltmeter and ammeter readi er surfa e the powd