

**Product Code . JL-TCOIP-7372**

## Thermal Conductivity of Insulating Powder



### Description

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Thermal Conductivity of Insulating Powder

#### **Description:-**

Insulating Powder apparatus is designed to determine the thermal conductivity of insulating Powder.

Inner sphere houses Nichrome Wire heating coil.

Heat flows radially outwards.

Insulating Powder is fitted between the spheres.

The Apparatus consists of two thin-walled concentric copper spheres.

Temperature sensors at proper positions are fitted to measure surface temperatures of spheres.

By varying the heat input rates, the wide range of experiments can be performed.

Heat input for the heater is given through a Variac and measured by Digital Voltmeter & Digital Ammeter.

#### **Experiment:-**

Comparison of Thermal Conductivity of insulating powder at different temperatures.

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Determination of thermal conductivity of insulating powder.

**Technical Details:-**

Inner Sphere : 100 mm dia.

Heater: Nichrome Wire

Outer Sphere: 200 mm dia.

Variac : 0-230 V / 2 Amps.

Temperature Sensors : RTD PT-100 Type (10 Nos.)

Control Panel : Digital Voltmeter: 0-300 Volt.

Digital Ammeter: 0-2 Amp.

With Multi-Channel Switch, ON/OFF Switch, Mains Indicator.

Digital Temperature Indicator: 0-300oC

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