

**Product Name :**  
Emissivity Measurement Apparatus**Product Code :**  
ALABS-A104-359**Description :****Emissivity Measurement Apparatus**

- The present Set-up is designed to measure the emissivity of test plate. The test plate comprises of a mica heater sandwiched between two circular plates.
- Black plate is identical with test plate, but its surface is blackened.
- As all the physical properties, dimension and temperature are equal heat losses from both plates will be same except radiation loss.
- Hence the input difference will be due to difference in emissivity.
- Both plates are supported on individual brackets in a enclosure with one side glass to ensure steady atmospheric conditions.
- Temperature Sensors are provided to measure the temperature of each plate and surrounding.
- Electric Supply is given to heaters through separate variacs so that temperatures of both can be kept equal and is measured with Digital Voltmeter and Digital Ammeter.

**Experimentation:**

- Determination of the Emissivity of a test plate.
- Study the variation of emissivity of test plate with absolute temperature.

**Utilities Required:**

- Electricity Supply : 1 Phase, 220 V AC, 4 Amp.
- Table for set-up support.

**Technical Specifications:**

- Test plate Diameter: 160 mm (approx.)
- Black Plate Dia: 160 mm (Approx.)
- Heater (2Nos.): Nichrome Wire Heater. (One each for test plate & black plate)
- Digital Voltmeter: 0-300 Volt
- Digital Ammeter: 0-2 Amps
- DPDT Selector switches: For Digital Voltmeter & Digital Ammeter
- Variacs; 0- 230 V, 2 Amp, (2 Nos.)(One each for test plate and black plate)
- Digital Temp. Indicator: 0-3000C, with multi-channel Switch
- Temperature Sensors: RTD PT-100 type
- Instruction Manual: An english instruction manual will be provided along with the Apparatus



## Equipments Exporters

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