

**Product Name :**  
Emissivity Apparatus

**Product Code :**  
NEGEMG167



#### Description :

##### Emissivity Apparatus

The **Emissivity Apparatus** consists of two similar aluminium discs. One of the discs is coated with black color and behaves like a black surface and the other disc is having a machined plane surface. Discs are fitted with similar heaters. The discs are placed in the enclosure in the symmetrical manner. Heater terminals taken out from the enclosure are connected to the mains of supply through dimmer stat to vary the heater input.. Temperature of each disc is measured by 3 thermocouples. One more thermocouple is placed inside the enclosure to measure surrounding temperature. The control panel consists of a two dimmers to control the voltage supplied to each heaters. A Voltmeter, an ammeter measures the voltage & current supplied to each heater. A digital temperature indicator reads the temperatures recorded by thermocouples.

#### Specifications:

- Test Plate: Made of aluminium, With embedded heater, Diameter 150mm
- Black Plate: Made of aluminium, with embedded heater, Diameter 150mm
- Wooden Cabinet: Cabinet with glass door on front side for housing the plates
- Electric Heater: Disk Type Heater, Capacity 200 W, Supply 230 V AC – 2 Nos
- Dimmer: Range 0-250 V AC, 2 A – 2 Nos
- Digital Voltmeter: Range 0-500 V AC – 2 Nos
- Digital Ammeter: Range 0-2 A AC – 2 Nos
- Temperature Sensors: Type 'K' Thermocouples – 7 Nos
- Temperature Indicator: 8 Channel Indicator with Selector Switch, Range 0-199.9 °
- Frame: Made of M.S. Square Tubes & Sheets, Welded & Powder coated

#### **Experimental Capabilities:**

- Determination of thermal conductivity of slab of composite material
- Comparison of calculated value of thermal conductivity with actual value

## **Naugra Export**

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