

Product Name :
Thermal Conductivity of AAC Blocks

Product Code :
CHINAELABC5450022



Description :

Thermal Conductivity of AAC Blocks

Technical Specification :

Thermal Conductivity Apparatus is designed to determine Thermal Conductivities of insulating materials in the form of slabs.

The Apparatus consists of main central heater sandwiched between the test specimens.

Cooling plates are provided on the either side of the specimen.

Single identical specimen are Clamped between heaters and cooling plate.

Ring guard heater ensures Undirectional heat flow through specimen.

Salient Features: (For single specimen testing):

Thermal conductivity test apparatus by guarded hot plate method is based on the steady state method and is able to measure 30 cm x 30 cm test samples having thickness ranging from a 5 cm to 10 cm.

Design concept according to Indian Standard (IS: 33461966) and Applicable ASTM Standard ASTM C177

External body is manufactured from Mild steel material, which is powder coated in attractive shades.

Specimen to be tested is placed in chamber such that it gets sandwiched between two heat flux sensors as per ASTM C177 guidelines.

Unit is equipped with 5 different thermocouples for temperature measurement on both sides of the test specimen and guard heaters. (In total 10 thermocouples)

Cooling is obtained by in built refrigeration system, which provides efficient cooling temperature as per test requirement.

Emerson / Kirloskar make or equivalent refrigeration system (CFC Free)

7" touch screen HMI & PLC Operation

Linear movement (UP & DOWN) for height adjustment with the help of linear actuator

Facility to feed dimensions of the samples to calculate the K-value.
Direct reading of K-value in w/m k (No further calculation required)
High temperature fiber glass box Insulation (8 mm thick) along with glass wool bag Insulation around set up
Complete panel mounted electrical controls and measurement.
All control accessories are within reach.
Operation on 230 Volts, 50 Hz, AC Supply
Suitable for industrial applications such as thermal conductivity measurement of AAC Blocks.

Temperature Range: 10 to 200° C
Thermal Resistance Range: 0.1 ~ 8.0 m2K/W
Co-efficient of thermal conductivity: 0.1 to 2 w/m k
Repeatability: 0.5%
Accuracy: $\pm 1-3$ %
Refrigerant: R134A - CFC Free
Plate Temperature Control: Through mini-chiller system
Central Heater capacity: 500 watts, sandwiched between two copper plates
Central heater dimensions: 150 mm x 150 mm
Ring Guard Heater capacity: 1500 watts between two copper plates
Chiller System: Cooling chamber with circulation arrangement
Test specimen size: 30 x 30 x 10 cm³



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