



Digital Ceramic Water Absorption Tester Model: ADL-WAT01

Overview

apparent porosity, apparent relative density and bulk density, and uses vacuum method to determine water absorption, apparent porosity and bulk density of domestic ceramics, building sanitary ceramics, electric porcelain and refractory materials. It also meets the test conditions of GB/T3299-2011 "Determination method for water absorption of daily ceramics".

The instrument can also be used to determine the water absorption of bricks, cement products, etc.

The main technical indicators

1. Vacuum: local atmospheric pressure (unit MPa) (minus) 0.01MPa.
2. Capacity: 250 ×300mm.
3. Vacuum time: 0-99999 seconds adjustable
4. Water injection time: 0-99999 seconds adjustable
5. Repeatability error: < 5%.
6. Time digital display.
7. Voltage: 220V,50HZ.

Structure and composition of the instrument

The instrument adopts mechatronics structure, which is composed of vacuum container, distilled water container, vacuum pump, vacuum injection valve, electromagnetic inlet valve, discharge valve and digital controller.

The test principle of the instrument

The instrument adopts automatic digital control system, and sets pre-vacuum time, holding time and water injection time according to the technical requirements of national standards.

When the sample prepared according to the measurement method is baked to constant weight, weigh m_1 , put into the vacuum container, close the air injection valve and water discharge valve. Start the vacuum pump to pre-vacuum the vacuum container. When the vacuum level reaches the required level, keep the vacuum level for a certain time. After the hold time is up, enter the water injection time. Open the air injection valve and water drain valve, and return the distilled water from the vacuum container to the distilled water container. Remove the cover of the vacuum container, take out the sample, wipe the surface moisture, and weigh (m_2). The measurement results of each sample are recorded, and then the water absorption of the ceramic tile is calculated.

The laboratory should be equipped with relevant instruments

1. Oven which work at work at $110^{\circ}\text{C}\pm 5^{\circ}$.
2. One balance that can weigh accurately to 0.01% of the sample mass
3. Deionized water or distilled water.

**Technical Data Subject to change without notice.*



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