

USER MANUAL

PORTABLE ASH CONTENT ANALYZER

PCE-ACA 50



ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

PRODUCT DESCRIPTION

PCE-ACA 50 ash content tester is mainly used to determine the ash content of plastics. It is an ideal equipment for plastic processing, scientific research departments of production enterprises and universities. The device can intelligently control the time and temperature in sections.

1. This instrument is suitable for the determination of ash content in polyethylene, polypropylene and polybutene plastics.
2. The instrument has the advantages of easy to use, simple operation, reliable work, accurate measurement, and automatic temperature control.
3. The instrument can be designed for smoke-free sealing.

TECHNICAL PARAMETERS

1. Display mode: 8-inch capacitive touch screen
2. Hearth size: $\Phi 60 \times 160\text{mm}$
3. Heating element: superalloy wire
4. Working temperature: room temperature ~ 1200 °C
5. Temperature control method: intelligent programmable control
6. Working power: AC220V / 50HZ / 60HZ
7. Sensor sensitivity: 0.01 °C
8. Overall power: less than 1KW

TECHNICAL CHARACTERISTICS

1. Rotary furnace body structure, suitable for combustion boats and crucibles of various sizes.
2. The instrument has a beautiful appearance and simple operation.
3. The instrument uses high vacuum ceramic fiber insulation material and imported high temperature resistant heating wire as the furnace core.
4. The cylindrical heating cavity is designed to make the sample more uniformly heated.
5. The integrated design of the heating furnace body and the control system is convenient for the user's instrument management.
6. High degree of automation, only need to set the temperature value and heating time, the instrument automatically heats up to the set value;
7. High temperature control accuracy, large temperature range, high uniformity of furnace temperature;
8. 8-inch LCD touch screen display, extremely friendly operation interface, one-button operation can be started
9. Has excellent constant temperature function, and can set constant temperature time, high constant temperature accuracy;
10. The instrument can set any group of different heating time periods, which can have different heating temperature, heating rate, and constant temperature time;
11. The parameter display is comprehensive, showing the number of set groups, theoretical temperature, actual temperature, heating time (or constant temperature time);
12. During the operation of the instrument, you can view the set parameters and the time of temperature rise or constant temperature.

OPERATING INSTRUCTIONS

Preparation before the experiment:

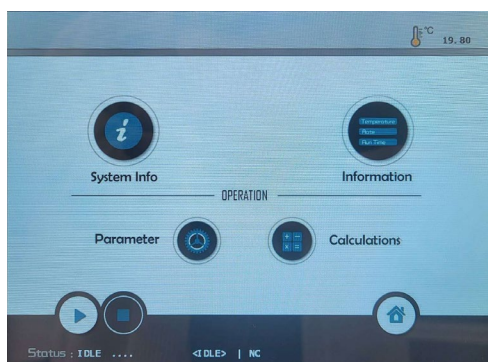
1. Connect the power cord of the instrument to a 220V 50Hz power supply and ground it correctly.
2. Prepare the sample to be tested, balance, and dryer.

Experimental operation:

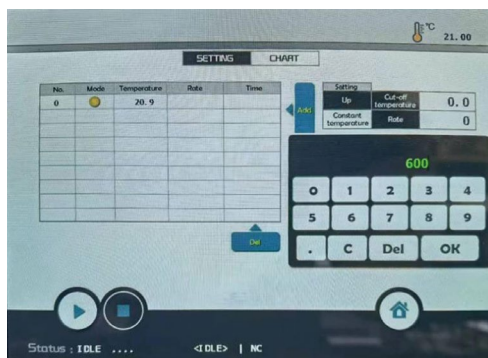
1. Open the instrument to set experimental parameters.
2. Place the crucible frame into the furnace, heat the empty crucible on the crucible frame until it is hot, then cool it in a dryer for at least 30 minutes, weigh accurately to 0.0001g, and record the weight at the m0 position of the [Touch Screen Calculation]. Place a polyethylene sample weighing (1.0 ± 0.1) g into a crucible and record the weight of the sample at position m1 on the [Touch Screen Calculation].
3. Cover the furnace lid, click on run, and the experiment begins.
4. After reaching the temperature, use tweezers to remove the crucible containing the sample and place it in a dryer to cool and weigh it. Record the weight at the position of m2 in the [Touch Screen Calculation].
5. Click on [Touch Screen Calculation] to calculate the ash content in the sample.

Parameter setting image:

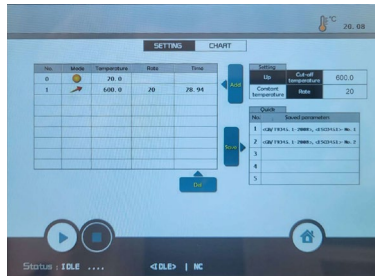
1. Click on [Parameter Settings]



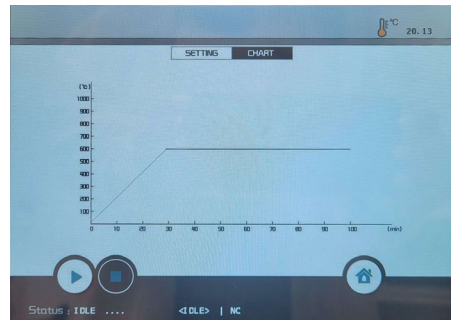
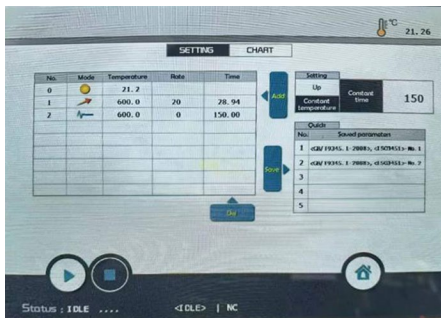
2. Click on [Heating] - [Cutoff Temperature], set the cut-off temperature to 400, click on [Heating Rate] to set the heating rate to 20. Then click [OK]



3. Click [Add] to add the first heating program



4. Similarly, add the second, third, and fourth paragraphs, which can be set to either [temperature rise] or [constant temperature]
5. After setting the temperature, you can view the curve of the set temperature range. Click on [Curve Chart], or slide left on the screen.



PACKING LIST

Serial No	Part Name	Specifications	Quantity
1	Ash content tester		1
2	Power cord	220v	1
3	Crucible	Ceramic crucible	10
4	Tweezers		1
5	Crucible bracket		1
6	Fuses	10A	5
7	Certificate of conformity		1
8	Instructions		1

DISPOSAL

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

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