

Differential Scanning Calorimeter

ZUFA DSC1100 (C)

Product introduction

The new design of the DSC1100(C) differential scanning calorimeters is based on ZF-DSC-D1 and ZF-DSC-D2 differential scanning calorimeters, which greatly improves the accuracy, sensitivity, repeatability, reliability and operation.

DSC1100 is an oxidation induction time analyzer, which is used to professionally analyze the induction time of oxidation of the polymer. This instrument conforms to the national standards: ISO11357 part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT).

DSC1100C is a differential scanning calorimeter, professionally analyzing the thermal effect and correspondent temperatures produced by the physical or chemical changes of the organic or non-organic materials under controlled temperature program. DSC1100C is used to examine and analyze the parameters of the melting point, enthalpy change, glass transition temperature, the phase transformation temperature, dynamics and etc. The instrument conforms to the national standards of ISO 11357-1: General principles, Determination, ISO 11357-2: Determination of glass transition temperature, ISO 11357-3: Determination of temperature and enthalpy of melting and crystallization.

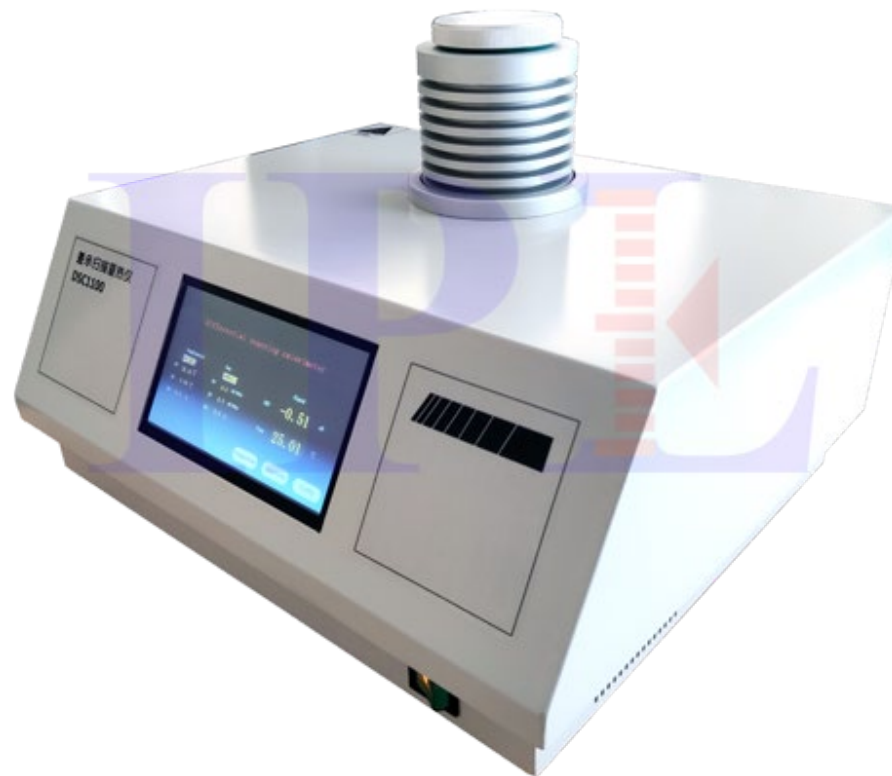
Industry application: The DSC1100 and DSC1100C differential scanning calorimeters can be used by colleges, universities, scientific research institutions, industrial and mining enterprises. They are mainly applied to the industries of chemical, pharmacy, plastic, cable, pipeline and etc.

Technical performance

- Small size of body. It can quickly rise and reduce the temperature with time base as user chose;
- High resolution of A/D (24 bits) data sampling; the sampling signal is of high accuracy and low drift.
- DSC signal scale: +200 -200mW, accuracy: 0.02mW.
- Intelligence temperature controller of the microprocessor system.
- The accuracy of the constant temperature can reach to 0.1° cover a long period of time because of using Pt100 and intelligence temperature controller;
- Adopt numerical mass flow-meter by computer control; the accuracy of the flow can reach to 0.2ml/min. Gas switching quickly, and stability in short time
- Color Touch LCD, the data of different thermal signals, determined temperature, sample temperature, oxygen flow, and nitrogen flow are displayed on the same screen.
- Communication by USB, Software automatic search USB, easy to operate.
- Software can be used under the environment of windows XP, windows 7, windows 8, windows 10 and windows 11 supporting the operating system of 32-bit and 64-bit versions.
- Intelligence software, automatically conducts the oxidation induction experiment and temperature calibration experiment. And the results are automatically calculated.
- The software has powerful functions to calculate and determine the oxidation induced time, extrapolated onset temperature, glass transition temperature, enthalpy change value and enthalpy change ratio.

The Main Technology

- $\pm 10, \pm 20, \pm 40, \pm 100, \pm 160, \pm 200$ mW, can change scale automatically.
- The accuracy of the signal reach to 0.02mW.
- Scale: 0 ~ 500 °C
- The accuracy of the long constant temperature: 0.1°C.
- Heating rate: 1 ~ 30 °C/min.
- Gas flow: 0 - 200 ml /min
- Control Accuracy: 0.2ml/min
- Gas pressure: 0.2MPa.
- Aluminum Pan Holder size 6.7 mm x 2.5 mm.
- Machine size: 400x320x200mm.
- DSC1100: Room temperature: 15° (~ 25°C)
- DSC1100C: -160 to +550°C
- Relative humidity: 55 ~ 75%
- Power Source: The power supply is 220 V / 50 Hz. Be sure to ground the instrument.
- The worktable should be strong and stable. In the surrounding, avoid the existence of strong vibration, heavy current, strong magnetic fields and corrosive gases, which affect the instrument's accuracy and reducing its working life. Be sure to stabilize the voltage of power supply. If it fluctuates too much, the temperature and DSC curve will be influenced.



Local Distributer in Iran : Iran Polymer Lab Equipment

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