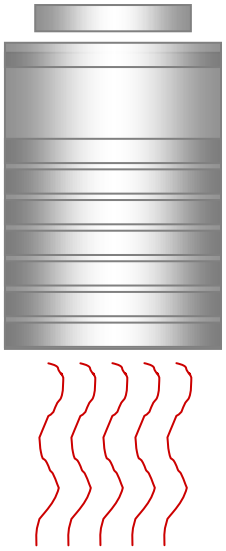


Differential Scanning Calorimeter

DSC

There are two models in HT-DSC-DH Series Differential Scanning Calorimeters. They are of great use in Universities, Scientific research Institutes, Industries like, Chemical, Pharmaceutical, Polymers, Pipes, Cables etc…

HT-DSC-D1H

It is best suited for OXYDATION INDUCTION TIME (OIT) Analysis. It is useful in analysis of Induction Time of Oxidation of Polymer.

Confirms to ISO 11357 Part 6

for Determination of,

OXYDATION INDUCED TIME (Isothermal OIT)

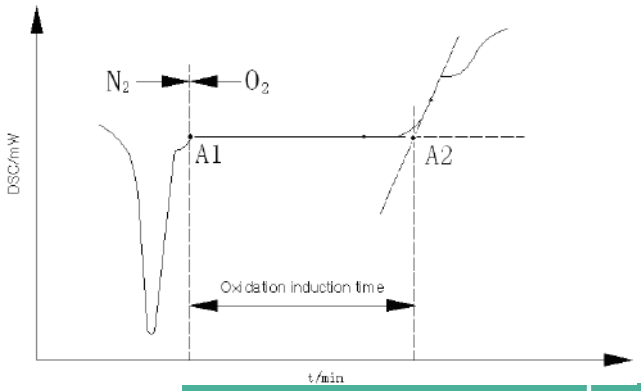
&

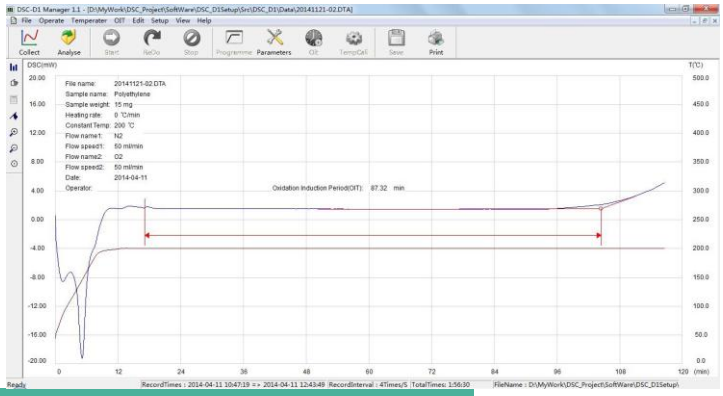
OXYDATION INDUCED TEMPERATURE (Dynamic OIT)

HT-DSC-D1H

It is specially configured for dedication application of measuring OXYDATION INDUCED TIME (OIT)

At experiment the DSC curve is recorded, mark out to have nitrogen to cut over oxygen of point A1, when the DSC curve obviously changes the tangent of the biggest inclined rate, mark the point A2 of intersection of biggest tangent and baseline extension, the time from A1 to A2 is oxidation induction time (min).



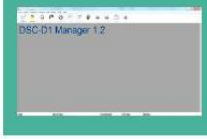


Oxidation induction time experiment instructions

1. Power on instrument, preheat for 20~30 minutes.

2. Put the 15mg±0.5 sample into the left crucible .

3. Turn on gas N2 and gas O2, the gas pressure is adjusted to 0.2MPa.



4. Open the software and select icon [collect] at the toolbar.

5. Set and download controlled temperature programme of oxidation induction time experiment.

6. Set sample parameters, create a new file

7. Select icon [Start] , icon [Oit] at the toolbar.

8. Oxidation induction time experiment is executed and ended automatically. Saving files and calculating results are also automatically done.

HT-DSC-D2H

It is best suited for analyzing the Thermal Effect and corresponding Temperature produced by the physical or Chemical changes of organic or non-organic materials under controlled Temperature program. It is very useful for determining Melting Point, Enthalpy changes, Glass Transition Temperature, etc…

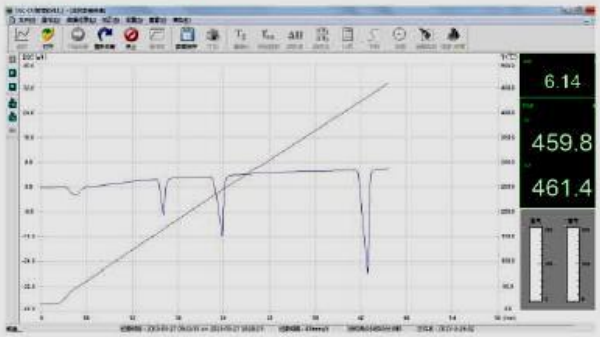
Confirms to

ISO 11357 Part 1 General Principles

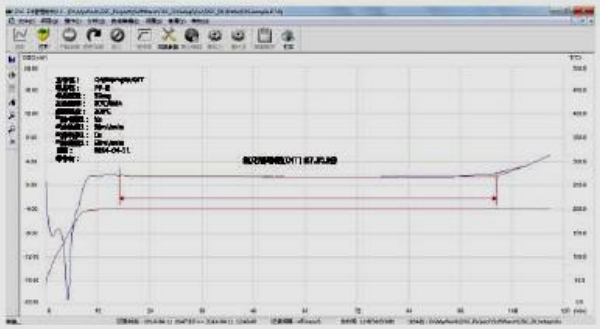
ISO 11357 Part 2 Determination of Glass Transition Temperature

ISO 11357 Part 3 Determination of Temperature & Enthalpy of Melting & Crystalisation

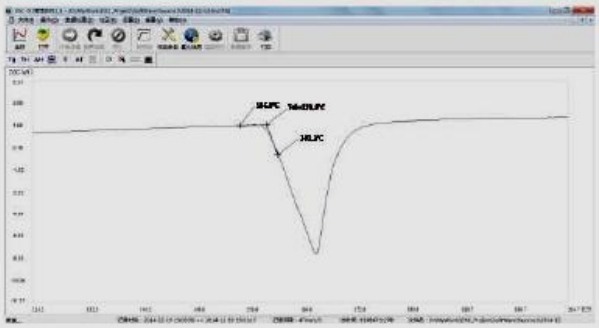
Real time curve



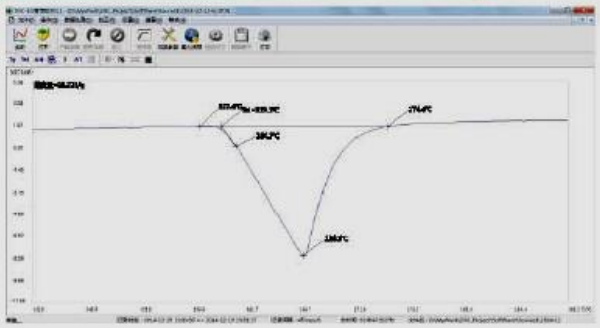
Determination of oxidation induction time



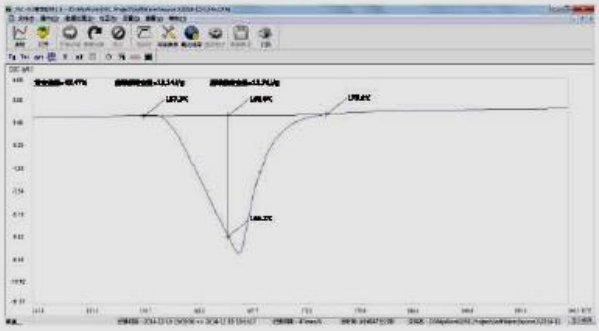
Determination of extrapolated onset temperature



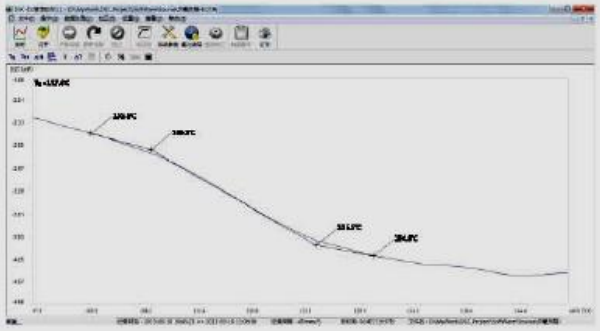
Determination of enthalpy change value



Determination of enthalpy change ratio



Determination of glass transition temperature



Features

- Small Size facilitates quicker rise and reduction of temperature.
- High Resolution A/D (24bit) with high data sampling gives High Accuracy and Low drift
- DSC signal scale: -200 to 200 mw accuracy of 0.02 mw
- Intelligent Micro-controller based Temperature Controller provides Temperature Accuracy of 0.1 ºC even over a long period of time.
- Numerical Mass Flow Meter with computer control for accuracy of flow as good as 0.2 ml/min. Even during Gas Switch it will stabilize the flow quickly.
- Colour LCD Display shows Data of different thermal signals, Determined Temperature, Sample Temperature, Oxygen flow, Nitrogen Flow etc..
- USB interface with PC.
- WINDOWS XP to WINDOWS 8 compatible software for both 32 bit as well as 64 bit OS.
- Automatic Temperature Calibration using Software
- Automatic Calculations using Software

DSC

✓ +/- 10, +/-20, +/-40, +/-100, +/-160, +/-200 mW with Auto Ranging
✓ Accuracy : 0.02 mW

Controlled Temperature

✓ Temperature Range : RT to 500 ºC
✓ Temperature Accuracy : 0.1 ºC
✓ Heating Rate : 1 to 30 ºC / min

Gas Control

✓ Gas Flow Range: 0 to 200 ml / min
✓ Flow Control Accuracy : 0.2 ml / min
✓ Gas Pressure 0.2 MPa

Crucible

✓ Material Aluminum
✓ Dimension : Ø 6.7 mm X 2.5 mm

Dimension

✓ 400 X 320 X 200 mm (W X D X H)

Operating Condition

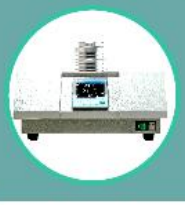
✓ Room Temperature : 15 ºC to 25 ºC
✓ Humidity : 55 to 75% RH

Power

✓ 220 V AC, 50 Hz spike free and stabilised power with proper Earthing.

CAL
Simple Steps

Temperature calibration time experiment instructions.

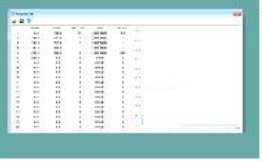


1. Power on instrument, preheat for 20~30 minutes.

2. Put the standard sample In or Sn into the left crucible .

3. Turn on gas N2 and , the gas pressure is adjusted to 0.2MPa.

4. Open the software and select icon [collect] at the toolbar.



5. Set and download controlled temperature programme of temperature calibration experiment.

6. Set sample parameters, create a new file

7. Select icon [Start] , icon [In Cali] or [Sn Cali] at the toolbar.

8. Temperature calibration experiment is executed and ended automatically. Saving files and calculating calibration coefficient are also automatically done.

9. Download calibration coefficient.

Regd. Office:
484 / B / 2, GIDC Industrial Area,
Makarpura, Vadodara - 390 010.
Tel : +91 8000484484, 8238090484
Email : sales@hemtech.in
CIN: U31900GJ2009PTC056166