

Test Report

Report No.: SCL01G008831

Page 1 of 5

Customer :CIXI JIEDA NANOMETER COMPOUND MATERIALS CO., LTD
Address :INDUSTRIAL DEVELOPMENT ZONE KANDUN TOWN,CIXI CITY ,
ZHEJIANG PROVINCE

The following sample information were submitted and identified by client as:

Sample Name :1.Charcoal filament 2.Filament
Sample Received Date :Jun. 13, 2014
Testing Period :Jun. 13, 2014 to Jun. 27, 2014
Test Requested :As specified by client, to analyse the submitted sample.
Test Apparatus :Fourier Transform Infrared Spectroscopy(FTIR)
Scanning Electron Microscope/Energy Dispersive Spectrometer
(SEM/EDS), Thermogravimetric Analysis(TGA)
Test standard :Refer to GB/T 6040-2002, GB/T 17359-2012, ISO 11358:1997
Test Result(s) :Please refer to the following page(s)

To be continued

Tested by Daryng Xiao
Approved by Colin Jiang
Colin Jiang
Technical Manager

Reviewed by Joan. Yang
Date Jun. 27, 2014

NO. R121038488

Centre Testing International (Shenzhen) Co., Ltd. Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China



Test Report

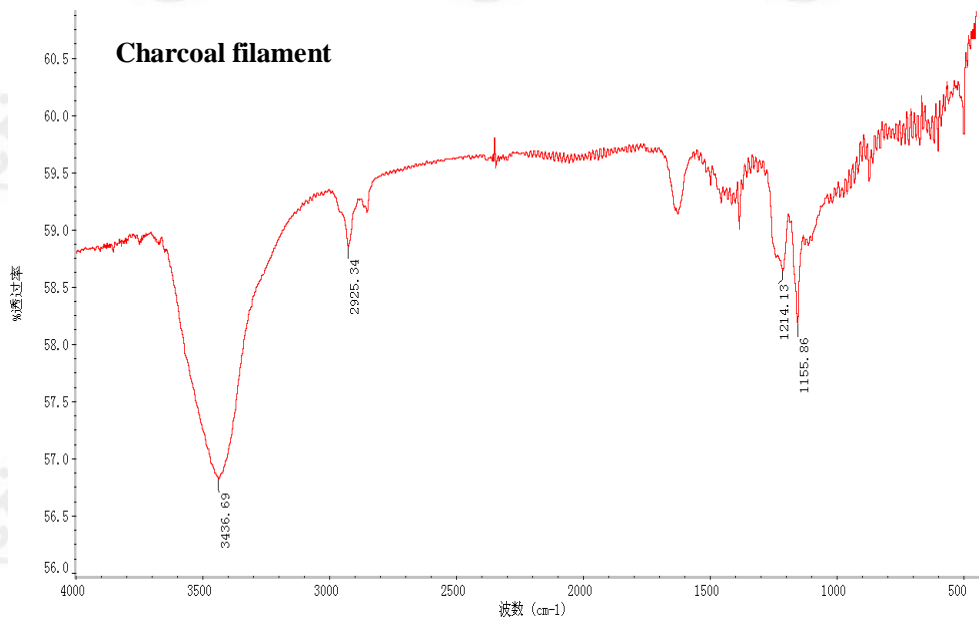
Report No.: SCL01G008831

Page 2 of 5

Test Result(s):

Tested part description: 1.Black plastic 2.White plastic

IR spectra:



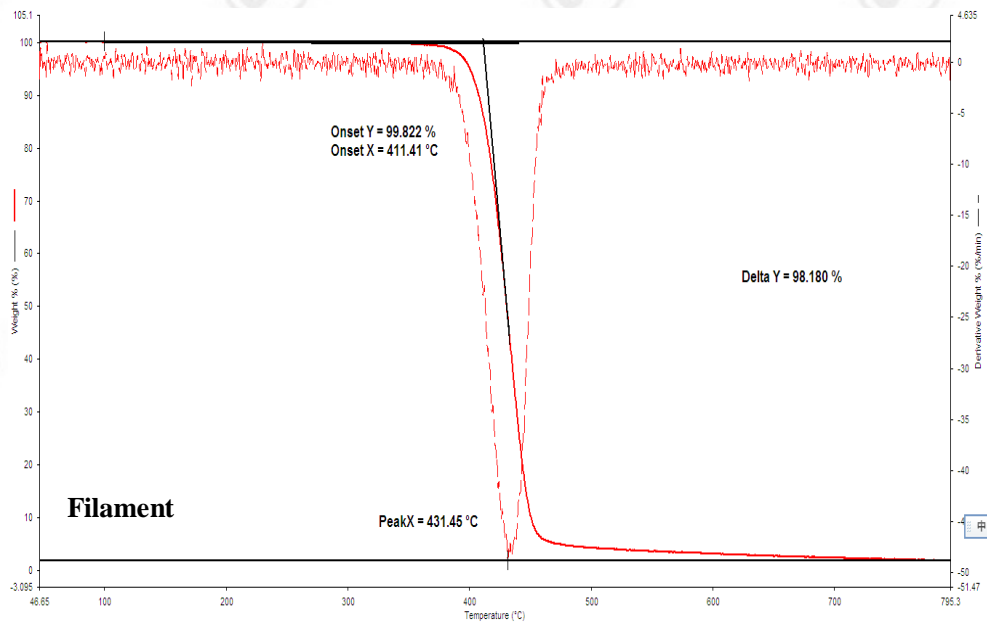
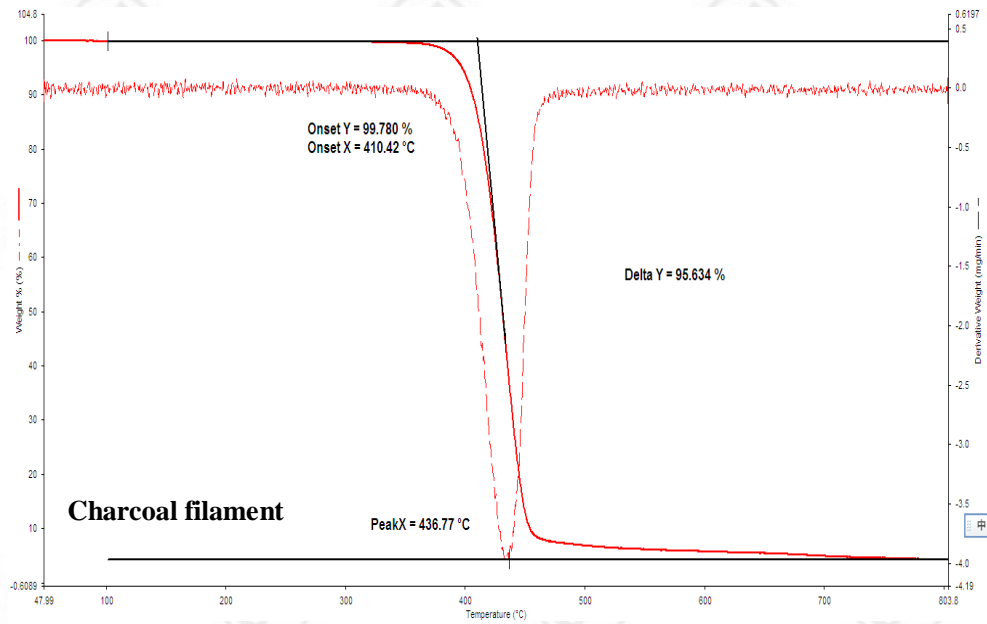
To be continued

Test Report

Report No.: SCL01G008831

Page 3 of 5

2.TGA Curve:



Test method: The heating program is heating from 50°C to 800°C at the rate of 20°C/min in nitrogen(N₂).

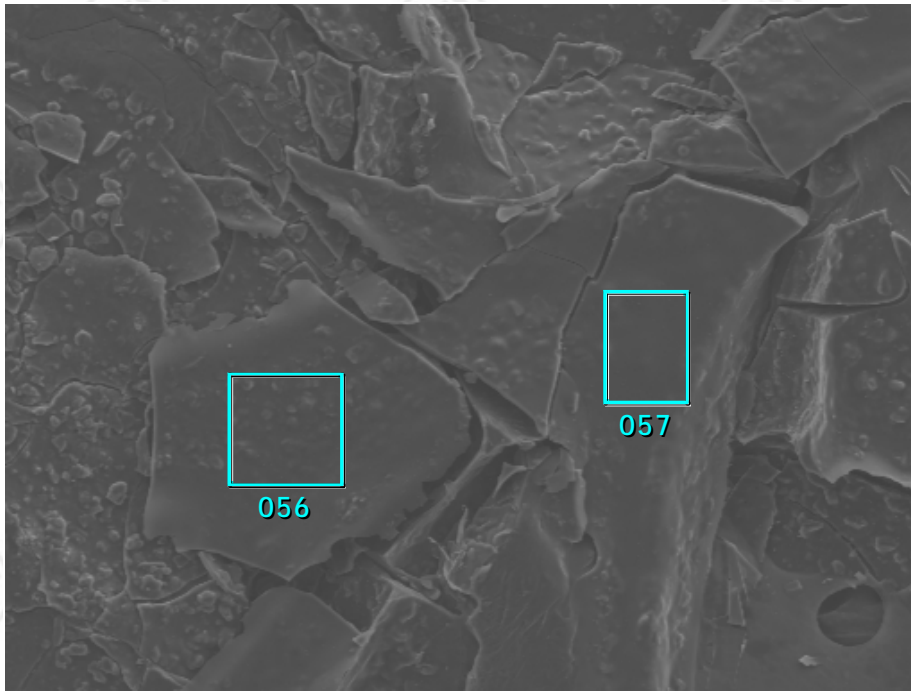
To be continued

Test Report

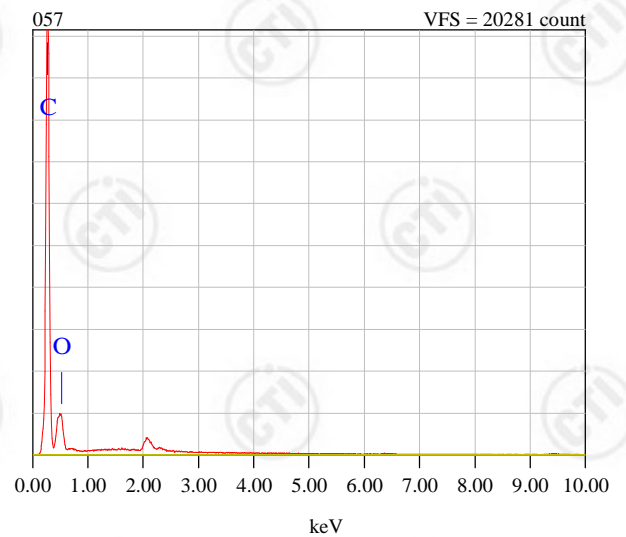
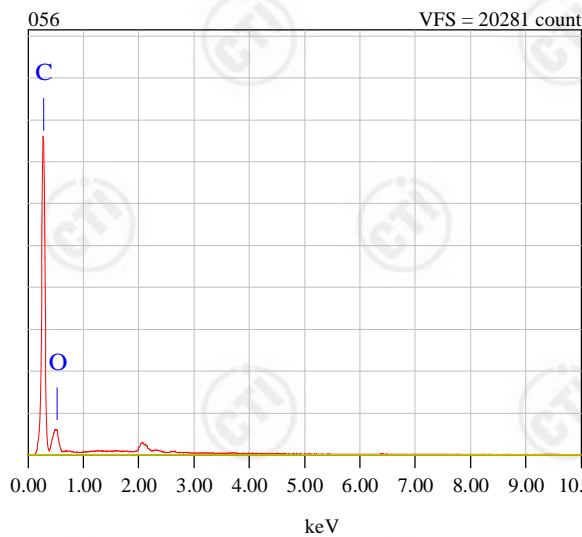
Report No.: SCL01G008831

Page 4 of 5

3.SEM picture and EDS spectrum of sample “Charcoal filament”:



0.2 mm



To be continued

Test Report

Report No.: SCL01G008831

Page 5 of 5

| Tested Areas | Element Content (Wt%) | |
|--------------|-----------------------|-------|
| | C | O |
| 056 | 89.06 | 10.94 |
| 057 | 88.91 | 11.09 |

Remark: Wt% =Weight percent

056 and 057 were selected test areas for SEM/EDS analysis.

Conclusion:

According to the results of FTIR spectrum, SEM/EDS and TGA, the content of carbon black is about 2.5% in “charcoal filament”(the content of carbon black is got from TGA result s according to client’s requirements).

Remark: The residue after TGA pyrolyzing is tested by FTIR and SEM/EDS.

Note: SEM/EDS is a qualitative and semiquantitative instrument analysis method, which cancover elements in periodic table from boron (B) to Uranium (U). The results are for reference only due to its limitations.

Sample Photo(s)



Charcoal filament



Filament

*** End of Report ***

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