

ICS 83.040.20

CCS G 49



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 14853.1-2013

Replacing GB/T 14853.1-2002

**Rubber compounding ingredients -- Pelletized carbon black --
Part 1: Determination of pour density**

Issued on: December 31, 2013

Implemented on: September 1, 2014

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Method summary

4 Instrument

4.2 ruler or blade length of at least 150mm.

4.3 Balance precision of 0.1g.

5 Sampling

6 Test procedure

6.2 weighing the carbon black quality, accurate to 0.1g.

Foreword

GB/T 14853 "Carbon black, pelletized rubber" is divided into five parts.

--- Part 1. Determination of pour density;

--- Part 2. Determination of fines content and the amount of wear particles;

--- Part 4. Determination of mass strength;

--- Part 5. Determination of particle size distribution;

--- Part 6. Determination of the strength of a single particle breakage.

This section GB/T 14853 Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 14853.1-2002 "Rubber granulated carbon black pour density determination." And GB/T 14853.1-2002 phase

Ratio, the main technical changes are as follows.

--- Modify the standard name;

Version --- 2002 is equivalent to using ISO 1306.1995, edition revised adoption ASTM D1513-05;

--- Increase the volume of "624cm³" stainless steel cup (see 4.1);

--- Added "stainless steel cup production methods" (see Note 4.1);

- Modify ruler specifications "130mm" is "150mm" (see 4.2);
- The "test procedure" has been described in greater detail (see 6.1);
- Modify the "precision" (see Chapter 8, edition 2002 Chapter 8);
- Increase the informative Appendix A.

This section uses redrafted law revision adopted ASTM D1513-05 "Standard Test Method for granulated carbon black pour density determination."

This section compared with ASTM D1513-05 more adjustments in the structure, listed in Appendix A of this section and ASTM D1513-05

The reg number control list.

This section exists compared with ASTM D1513-05 technical differences, technical differences and their reasons are as follows.

- Remove the precision of the detailed description, with retention of the precision requirements (see ASTM D1513-05 Chapter 10, edition

Chapter 9);

- Increased blurbs normative references and references relationship with ASTM D1799, D1900, D4483 without a corresponding I

National standards (see Chapter 2 edition);

- Delete the words "pour density Cup" representation diameter "(4in +/- 0.2in)", to fit our representation; while increasing

"Note 2. You can also use other volumetric density of the cup, but the test results are consistent with the requirements" to facilitate the use of a standard user (see

ASTM D1513-05 5.1, this version 4.1);

- Remove the ISO standard containers used 1000cm³ pour density calculation formulas, while increasing the description of the formula

"If the volume of 1000cm³ pour density cup, pour density D (kg/m³) is equal to the carbon black in value

Mass (g) ", and simplifies the formula (2), to facilitate the use of a standard user (see ASTM D1513-05 of 8.1.1, 8.1.2,

Chapter 7 of this edition).

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Rubber and rubber products Standardization Technical Committee of carbon black Technical Committee (SAC/TC35/SC5) centralized.

This section is responsible for drafting unit. China Rubber Group Carbon Black Research & Design Institute.

1 Scope

GB/T 14853 provisions of this part of the rubber Carbon black, pelletized pour determination of density.

This section applies to all types of rubber carbon black density was determined using pelletized pour.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 3778 carbon black for rubber

GB/T 8170 repair value expressed about the rules and limit values judgment

3 Method summary

By weighing a known volume of the mass of carbon black, poured density calculated.

4 Instrument

4.1 cups pour density, or volume 1000cm³ 624cm³, highly uniform, no decanted lip. Stainless steel cups, diameter (100 +/- 5) mm.

Note 1. The cup pour density can be made in the following manner. at 20 degrees C, or 624cm³ 1000cm³ pour water in diameter (100 +/- 5) mm volume

1000cm³ 1200cm³ or stainless steel cup, at the level of well marked, then the lathe clamping vehicles knife to cut off the mark.

Note 2. You can also use other volumetric density Cup, but consistent with the requirements of the test results.

5 Sampling

Sampled according to the provisions of GB 3778.

6 Test procedure

6.1 never exceed 50mm above the center of the rim of the glass, poured it in the black cup peeled density, carbon black to overflow the rim and on the density of the square

Into a cone. During the test, the density of the cup should maintain the natural resting state. Holding a ruler or vertical blade close to the rim of the glass container, scrape

Black top, so that the surface is horizontal.