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

GB/T 14853.5-2013

Replacing GB/T 14853.5-2002

**Rubber compounding ingredients -- Pelletized carbon black --
Part 5: Determination of pellet size distribution**

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4.3 sieve bottom tray.

4.4 Test sieve cover.

4.5 sample riffle. both sides have six or more parallel grooves.

4.6 Balance. accuracy of 0.1g.

4.7 Container. for containing the sample and the sample after the screening.

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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 5.

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

This Part replaces GB/T 14853.5-2002 "Determination of granulated carbon black for rubber particle size distribution", and GB/T 14853.5-

Compared to 2002, the main technical changes are as follows.

--- Modify the standard name;

--- Increase the "scope" of the (wet and dry) (see Chapter 1);

--- Increased 8.2 in Table 2.

This section uses redrafted law revision using ISO 8511.2011 "Determination of granulated rubber particle size distribution of carbon black used."

This part of ISO 8511.2011 as compared to the presence of technical differences, differences in technology and for the following reasons.

--- Modify the standard name;

--- Increased references GB 3778 and GB/T 8170, to facilitate a standard user (see Chapter 2);

--- On both sides of the sample using six or more parallel grooves riffle, in line with China's actual situation (see 4.5).

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 drafted. Rubber Group Carbon Black Research & Design Institute.

1 Scope

GB/T 14853 provisions of this part of the determination of granulated carbon black for rubber particle size distribution.

This section applies to the determination of carbon black for rubber granulation (wet and dry) particle size distribution.

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 6003.1 Test sieves - Technical requirements and testing - Part 1. Test sieves of metal wire braid (GB/T 6003.1-2012,

ISO 3310-1.2000, MOD)

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

3 Method summary

The amount of granulated carbon black sequentially through sieves of different pore sizes and weights of the left in each sieve of carbon black particles calculated

Particle size distribution.

4 instruments and equipment

4.1 Mechanical vibration sieve machine. mechanical vibration sieve function of a set of test sieves 200mm diameter of uniform vibration. Sieve shaker speed

280r/min ~ 320r/min (4.6r/s ~ 5.3r/s), the vibration frequency of 140 times/min ~ 160 times/min (2.3Hz~2.7Hz). most

Central Configuration screen cap above a cork (cork cork can only be used to do, can not be used instead of rubber), cork up screen cover 3mm ~ 9mm.

4.2 Test sieves. phi200mm x 25mm/2.00mm, phi200mm x 25mm/1.00mm, phi200mm x 25mm /

0.50mm, phi200mm x 25mm/0.25mm, phi200mm x 25mm/0.125mm, in line with GB/T 6003.1 regulations.

Note 1. If the determination of dry granulated particles can increase the porosity of test sieves phi200mm x 25mm/0.71mm of.

Note 2. The supply and demand sides agreed to increase the size of the other test sieve.