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Test Method for Surface Roughness of Carbon Materials

炭素材料表面粗糙度试验方法

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Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 *Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents*.

Please be noted that certain content of this document may involve patents. The institution issuing this document does not undertake the responsibility of identifying these patents.

This document was proposed by China Iron & Steel Association.

This document shall be under the jurisdiction of National Technical Committee on Steel of Standardization Administration of China (SAC/TC 183).

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Test Method for Surface Roughness of Carbon Materials

1 Scope

This document describes the principle, instrument and equipment, specimens, test procedures and test report of the test method for surface roughness of carbon materials.

This document is applicable to the evaluation of surface roughness of carbon material products with aggregate particles less than 1.6 mm through the stylus profile method. Generally, the arithmetical mean deviation of profile (R_a) is selected as the measurement parameter, and other parameters, for example, maximum height of profile (R_z), can also be selected as needed. Other carbon materials may take this as a reference.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in the text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 6062 Geometrical Product Specifications (GPS) - Surface Texture: Profile Method - Nominal Characteristic of Contact (stylus) Instruments

GB/T 8170 Rules of Rounding off for Numerical Values & Expression and Judgement of Limiting Values

3 Terms and Definitions

The following terms and definitions are applicable to this document.

3.1 roughness profile

The profile formed by applying a profile filter to the original profile to suppress the long-wave components.

3.2 sampling length

l_r

The length of determining the irregular characteristics of the profile being evaluated in the direction of measurement.

3.3 evaluation length

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