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Test methods for physical properties of graphite materials

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Carbon Association (JCA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS R 7222**:1997 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Test methods for physical properties of graphite materials

1 Scope

This Japanese Industrial Standard specifies test methods for evaluating the physical properties of graphite materials (hereafter referred to as materials) excluding brush materials for electrical machines.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7502 *Micrometers*

JIS B 7507 *Vernier, dial and digital callipers*

JIS B 7727 *Shore hardness test—Verification of testing machines*

JIS C 1602 *Thermocouples*

JIS C 1605 *Mineral insulated thermocouples*

JIS R 3503 *Glass apparatus for chemical analysis*

JIS K 8810 *1-Butanol (Reagent)*

JIS Z 8704 *Temperature measurement—Electrical methods*

JIS Z 8801-1 *Test sieves—Part 1: Test sieves of metal wire cloth*

3 Terms and definitions

For the purposes of this Standard, the following terms and definitions apply.

3.1 maximum particle size

maximum size among 50 adjacent particles observed under a microscope

The particle size is the major diameter of the closed polygonal system that appears on the flat surface of the sample which has been polished and conditioned for microscopic observation. The microscopic observation of the surface shall be performed on the following surfaces.

a) In the case of a metallic molded product, the surface perpendicular to the pressing direction at the time of molding.

b) In the case of an extruded product, the surface parallel to the extrusion pressure direction.

c) In the case of an isotropic compression product, the surface in any direction.

d) In the case where the pressurization direction is unknown, three sides that are orthogonal to one another.

In this case, out of the maximum particle sizes observed on the three sides, the largest shall be taken as the maximum particle size.