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**NATIONAL STANDARD OF THE  
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**GB/T 21774-2008**

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**Coating powders -- Determination of stoving condition  
(English Translation)**

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### Foreword

This standard is equivalent to using the German standard DIN55990. T4. 1979 "Determination of the powder coating curing conditions" (in German).

To facilitate the use of this standard, the following editorial changes.

--- With DIN1623-2 "flat rolled steel products and cold-rolled strip steel sheet Technical delivery conditions for ordinary structural steel" instead DIN1623 "Part 1. flat steel products, cold rolling strip steel and non-alloy steel, soft quality standards";

--- With DIN12880 "laboratory ovens and incubators electrical equipment" instead DIN50011 "Part 1. The structure of materials testing Member inspection equipment and incubators definitions and requirements ";

--- With ISO 1519 "Paints and varnishes bending test (the cylinder axis)" instead DIN53152 "paints and varnishes and paint inspection Varnish material mandrel bend test ";

--- With ISO 2812-1. instead of "Paints and varnishes - Determination of resistance to liquids - Part 1 of liquids other than water immersion method" DIN53168 (currently in draft version) "paints and varnishes and similar coatings inspection of coating stability against chemicals Determination ";

--- With GB/T 3186-2006 "Paints, varnishes and raw materials for paints and varnishes - Sampling" (ISO 15528:2000, IDT) instead of DIN53225 "paint test sample";

--- With GB/T 20777-2006 "inspection and sample preparation Paints and varnishes" (ISO 1513:1992, IDT) instead of DIN53226 "paint inspection and pre-inspection test sample preparation";

--- With ISO 1514 "Paints and varnishes - Standard panels for" instead DIN53227 "paints and varnishes testing of metallic materials or gases Making of sample standards";

--- With ISO 1520 "Paints and varnishes - Cupping test" instead DIN53156 "paint visual assessment and inspection similar coating materials Price paint and similar coating material depth (in accordance with the Izod test)";

--- With a decimal point "." Instead of a comma as the decimal point "." this standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

Drafting of this standard. Guangdong CIQ, in the construction of Changzhou coating Chemical Research Institute, Marine Chemicals Research Institute, Sinochem Chemical Standards Institute, Hubei Exit Inspection and Quarantine.

## 1 Scope

The standard method for the determination of powder coatings electrostatically atomizing background baking conditions.

**Note:** See the definition of powder coatings DIN55945.

## 2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 3186-2006 Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000, IDT) GB/T 20777-2006 examination and preparation of samples for paints and varnishes (ISO 1513:1992, IDT/ISO 1513Cor1.

1994, IDT)

ISO 1514 Paints and varnishes - Standard panels for ISO 1519 Paints and varnishes bending test (cylindrical shaft) ISO 1520 Paints and varnishes - Cupping test ISO 2812-1 Paints and varnishes - Determination of resistance to liquids - Part 1. In addition to liquids other than water immersion DIN1623-2 flat rolled steel products and cold-rolled strip steel sheet Technical delivery conditions for ordinary structural steel DIN12880 laboratory oven and incubator for electrical equipment DIN50014 climate and climate technology standards Principle 3 at different temperatures and different test plates holding time, baking powder coating, according to the provisions of their inspection and coating characteristics to obtain a coating should Baking conditions necessary to achieve the characteristic time. By comparing the test results obtained paint baking conditions to understand the

characteristics reaches a predetermined test results.

#### **4.1 Oven**

With sufficient air circulation oven heating power, in line with DIN12880.

#### **4.2 Determination of the temperature of control device**

Types and specifications of the same uncoated steel test used thermocouple test. The oven must be equipped with testing equipment Meet the requirements of the test plate.

#### **4.3 Stopwatch**

Range 60min, accurate to 0.1min.

#### **4.4 Test Sheet**

Shall comply with the requirements of ISO 1514, the size can be negotiated. When the control test, press DIN1623-2 with a thickness of  $0.8\text{mm} \pm 0.1\text{mm}$  and degreasing agent cleaned ST1405 steel.

### **5 Sampling**

According to GB/T 3186-2006 sampling, press GB/T 20777-2006 sample preparation.