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

GB/T 13891-2008

Replacing GB/T 13891-1992

**Test methods of specular gloss for decorative building
materials**

建筑饰面材料镜向光泽度测定方法

(English Translation)

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Foreword

This standard and ISO 2813:1994 "Paints and varnishes --- non-metallic film 20 °, 60 ° and 85 ° measured specular gloss of" consistency Cheng Use of non-equivalent.

This standard and ISO 2813:1994 The main differences are.

--- ISO 2813:1994 applies to paints and varnishes, this standard applies to marble, granite, terrazzo, ceramic tiles, plastic flooring, Fiber-reinforced plastic sheet and other decorative building materials;

--- Due to the different scope, sample, test procedure, repeatability, test reports, etc. are also differences.

This standard replaces GB/T 13891-1992 "decorative building materials specular gloss measurement method." this standard compared with GB/T 13891-1992, the main changes are as follows.

--- Inclusion within the scope of the gloss meter under conditions of different geometric method for determining the gloss mirror;

--- Within the instrument and measuring additional parameters that are gloss meter and reference plate;

--- Revised measure incident light beam aperture with ceramic tiles measuring the determination of marble, granite, terrazzo and other decorative materials gloss when Dot arrangement;

--- Revised test report.

The standard proposed by China Building Materials Federation.

The standard by the China Building Materials Federation.

1 Scope

This standard specifies the use of 20 °, 60 ° and 85 ° measurement geometry decorative building materials mirror the terms and definitions gloss method, apparatus, and measuring tools, sample testing, calculation results, repeatability and test reports.

a) all kinds of decorative building materials - Determination of specular gloss are using 60 ° geometry;

b) When measuring 60 ° specular gloss material is greater than 70 gloss units, in order to improve its degree of resolution, can be 20 ° geometry condition;

c) When 60 ° measured material specular gloss of less than 10 gloss units, in order to improve its degree of resolution, can be 85 ° geometry condition.

This standard applies to the determination of marble, granite, terrazzo, ceramic tiles, plastic flooring and fiber-reinforced plastic sheet and other decorative building materials the specular gloss. Mirror other decorative building materials to gloss may refer to this standard were measured.

2 Terms and definitions

The following terms and definitions apply to this standard.

In the light of the provisions and conditions of the acceptance angle of the reflective mirror from the object in the direction of the luminous flux and a refractive index of 1.567 on the glass mirror Ratio of the reflected flux direction.

NOTE: To determine the specular gloss, for 20 °, 60 ° and 85 ° angle using 1.567 geometric perfection polished black gloss glass predetermined refractive index value 100.

Under the same geometrical conditions, a sample from the reflected light flux and the ratio of luminous flux standard board reflection.

3 and measuring instruments

3.1 Gloss meter

3.1.1

gloss meter utilizing the principle of light reflection gloss of the sample is measured. That is, according to the angle of incidence and provisions under prescribed conditions beam Shot samples to give direction to the reflection angle of the beam splitter. Gloss meter from the light source, a lens, a receiver and display instruments and other components. The measurement principle See Figure 1.

3.1.2

gloss meter has the following features.

a) geometry

The axis of the incident light, respectively, shall be measured perpendicular to the plane (20 ± 0.1)°, (60 ± 0.1)°, (85 ± 0.1)°, the incident beam aperture to 18mm. Axis and the incident light axis of the mirror angle in the receiver of ± 0.1 °. In the test plate where to place a polished black when the front glass plate or mirror, the light source should mirror the field diaphragm in the receiver (receiver window) is formed in the center position (see FIG. 1).

To ensure coverage of the entire surface of the test plate surface irradiation region width greater than the surface structure as possible. the general value of not less than 10mm.

Mirror and the light source and the associated receive aperture size and tolerances shall comply with the provisions in Table 1. Receiver field diaphragm aperture Size can be measured from the receiving lens.