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JJG

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

JJG 696-2015

Replacing JJG 696-2002

**Verification Regulation of Specular Gloss Meters and Gloss
Plates**

(English Translation)

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Introduction

According to JJF1002-2010 "national measurement procedures for the preparation of rules" provisions, the JJG 696-2002 "Mirror to gloss meter and gloss board" test procedures for the overall structure and the preparation of the revised version of the program the structure is more perfect, more clearly organized. In addition to editorial changes, the main technical changes are as follows.

- the second working gloss meter maximum indication error from the original $\pm 2.5\text{GU}$ relaxed to $\pm 3.0\text{GU}$, and increase Plus the division of the value of 1GU instrument requirements (see Table 1);
- increase the standard gloss meter and scale value of 0.1 secondary gloss meter measurement range and the specific value of the scale (See Table 1);
- increased the specific requirements for the glossy panel measurement range (see Table 2 in Table 2);
- the amount of change in the glossy plate from the original standard plate 0.5GU to 0.6GU (see Table 4.2);
- delete the requirements of the pointer glossy instrument;
- Increased the exact requirements for instrumental measurement datums (see 5.1.1), and in Chapter 6 the section specifies the inspection method;
- Added verification method for gloss meters using transient measurements (see 6.3.1);
- Remove the standard gloss meter matching equipment in the red, blue ceramic plate and vernier caliper, and related applications.

The previous version of this procedure is released as follows.

- JJG 696-1990;
- JJG 697-1990;
- JJG 696-2002.

Mirror to Gloss Meter and Gloss Board Verification Procedure

1 Scope

This procedure applies to the first test of the mirror gloss meter and the mirror glossy plate, the subsequent verification and the use of an examination.

2 terms and units of measurement 2.1 mirror gloss specular gloss Mirror gloss is a relative measurement of mirror gloss. Reference standard is black glass with refractive index $n_D =$

1.567, Assuming that the plane is ideal for polishing, the natural beam is mirrored by the plane and defines the mirror the gloss value is 100.0. The sign of the gloss (hereinafter referred to as gloss) is $G_s(\theta)$.

2.2 Unit of measurement the unit of glossiness is glossy units (glossunit), using abbreviations (GU).

3 Overview

3.1 mirror gloss meter Mirror gloss meter (hereinafter referred to as gloss meter) for measuring paint, paper, plastic, enamel, ceramics, aluminum and aluminum alloy and other flat products to the mirror gloss.

The gloss meter measures the gloss of the sample using the light reflection principle. I.e. the specified angle of incidence and the specified beam Under the conditions of the sample irradiation, the mirror to the direction of the reflection of the direction of the beam, the measurement methods are usually continuous measurement and transient measurement the amount of two. Gloss meter by the light source, lens, receiver and display instruments and other components, the measurement principle is divided into parallel optical path (See Figure 1) and convergence light path (see Figure 2) two. Gloss meter can be divided into fixed angle and variable angle, commonly used angle 20° , 45° , 60° , 75° and 85° , and its optical parameters are given in Appendix C.

Figure 1 parallel light path of the mirror to the gloss meter measurement principle