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SH

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

SH/T 1499.9-1997

**Pure adipic acid. Measurement of melt colour (in Pt - Co scale)
(English Translation)**

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Table of Contents

Foreword...	4
1 Scope...	6
2 Normative references...	6
3 Terms, definitions, abbreviations...	7
4 General requirements for measurement...	8
5 Measurement method of normal temperature performance...	14

1 Scope

This standard specifies the terms and definitions, measurement conditions, measurement items, measurement methods, measurement results expression, etc., of electronic projectors.

This standard applies to electronic projection type fixed resolution projectors (hereinafter referred to as projectors), including liquid crystal display (LCD) projectors, liquid crystal on silicon (LCoS) projectors, digital light processing (DLP) projectors, etc. Other projection methods and electronic projectors, which are used in different occasions, can be implemented with reference to it.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB 3174 PAL-D system TV broadcasting technical specification

GB/T 6882 Acoustics - Determination of sound power levels of noise sources using pressure - Precision methods for anechoic and hemi-anechoic rooms

GB/T 7921 Uniform color space and color difference formula

GB/T 14857 The specifications of encoding parameters of digital television for studio

GB/T 15644 Application of connectors for the interconnection of equipment in audio-visual systems

GB/T 17953 Interfaces for 4.2.2 digital component video signals

3.1 Terms and definitions

The terms and definitions, which are defined in SJ/T 11324, as well as the following terms and definitions, apply to this document.

3.2 Abbreviations

The following abbreviations apply to this document.

CCT. Correlated colour temperature

CIE. Commission internationale de L' Eclairage (fr)

DLP. Digital light process

LCD. Liquid crystal display

LCoS. Liquid crystal on silicon

4.1 General description

Unless otherwise specified, the voltage values, which are given in this standard, are valid values.

4.3.1 Illuminometer

The illuminometer requirements are as follows.

4.3.2 Video signal generator

The requirements for video signal generator are as follows.

4.3.3 Anechoic chamber

The anechoic chamber and related equipment shall comply with the provisions of GB/T 6882.

4.3.4 Power supply

The power supply requirements are as follows.

4.3.5 Power meter

The power meter is an active power meter. The minimum current range is less than or equal to 10 mA. The reading is accurate to at least 0.01 W, when measuring power less than or equal to 10 W.

4.3.6 Weighing device

The measurement results of the weighing device shall be accurate to at least 0.1 kg.

4.4.1 Overview

The test signal shall have a signal format, which is consistent with the inherent resolution of the projector. The standard definition signal conforms to the provisions of

GB/T 14857. The high-definition test signal conforms to the provisions of GY/T 155.

The input interface, aspect ratio, input format of the test signal shall be indicated, in the measurement results.

4.4.3 Color bar signal

See 5.3 in GB/T 26270-2010, for the description and examples of test diagram.

4.4.4 All-white field signal and all-black field signal

See 5.4 in GB/T 26270-2010, for the description and examples of test diagram.

4.4.5 Location map of uniformity test points

See Figure D.2 in GB/T 26270-2010, for the description and examples of test diagram.

4.4.6 Black and white window signal

See 5.8 in GB/T 26270-2010, for the description and examples of test diagram.

4.4.7 Single pixel signal

See 5.20 in GB/T 26270-2010, for the description and examples of test diagram.

5.1.1 Overview

This clause is to measure the correlated color temperature (CCT) of the projector, under standard operating state.

5.1.3 Presentation of measurement results

Measurement results are expressed in Kelvin (K).

5.2.1 Overview

This clause specifies the measurement of the luminance output of the projector, under standard operating state.

5.3.1 Overview

This clause specifies the measurement of the consistency of the projector's output on the entire screen on the projection surface, under standard operating states.

5.3.3 Presentation of measurement results

Illuminance uniformity is expressed as a percentage (%).

5.4.1 Overview

This clause specifies the measurement of the ratio of the average illuminance of the brightest area to the darkest area, on the same screen, under normal operating states of the projector.

5.7.1 Overview

The vertical and horizontal definition of the image is observed subjectively.

5.8.1 Overview

This clause specifies the measurement of the playback capability of the projector, to different input signal formats, under standard operating states.

5.22.1 Overview

This clause specifies the measurement of the ability of the projector to keep working normally, when the mains power supply changes.

5.22.3 Presentation of measurement results

The measurement result is expressed as the variation range of the grid power supply, when the projector can work normally.

5.23.1 Overview

This clause specifies the measurement of the farthest distance, that the remote control can make the projector work normally, when the projector is remote controlled.

5.23.2 Measurement steps

The working voltage of the remote control transmitter shall be the rated value. The remote control infrared light's receiving window surface is in the environment of natural light or fluorescent lamp illumination of (200 ± 50) lx; the projector inputs composite test diagram;