

CCS G 55



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

GB/T 39824-2021

Determination of relative strength of dyes in solution

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to amend and adopt ISO 105-Z10.1997 "Textile color fastness test Part Z10.Dyeing in solution

Determination of relative strength of materials".

Compared with ISO 105-Z10.1997, this standard has more adjustments in structure.

Appendix A lists this standard and ISO 105-Z10.1997.

Z10.A list of.1997 chapter numbers.

Compared with ISO 105-Z10.1997, this standard has technical differences, and the clauses involved in these differences have been passed on the outer margins.

The vertical single line () of the position is marked, and Appendix B gives a list of the corresponding technical differences and their reasons.

This standard also made the following editorial changes.

--- Change the standard name of ISO 105-Z10.1997 "Textile color fastness test part Z10.relative color strength of dyes in solution"

Amend to "Determination of the relative intensity of dyes in solution";

--- According to the Chinese standard compilation format, the description of the scope of Chapter 1 of ISO 105-Z10.1997 has been revised;

---Delete all the notes of ISO 105-Z10.1997.

This standard was proposed by the China Petroleum and Chemical Industry Federation.

This standard is under the jurisdiction of the National Dyestuff Standardization Technical Committee (SAC/TC134).

Drafting organizations of this standard. Hebei Jiatai Chemical Technology Co., Ltd., Shenyang Chemical Research Institute Co., Ltd., Zhejiang Boao New Materials Co., Ltd.

Co., Ltd., Zhejiang Changzheng Chemical Co., Ltd., Shenyang Shenhua Institute Testing Technology Co., Ltd., National Dyestuff Quality Supervision and Inspection Center.

1 Scope

This standard specifies the method for determining the relative strength of dyes in solution.

This standard applies to the determination of the relative strength of some types of dyes in solution.

This standard does not apply to dyes and photochromic dyes with significantly different absorption curves.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 6682-2008 Analytical laboratory water specifications and test methods (ISO 3696.1987, MOD)

JJG196-2006 Verification Regulations for Commonly Used Glass Measuring Apparatus

3 Principle

When the dye solution conforms to the Lambert-Beer law, the test dye and the reference dye are prepared into a certain concentration of solution with the same solvent.

Liquid, measure their absorbance value with a spectrophotometer. Then calculate the relative value of the dye to be tested by the respective absorbance value and concentration value.

strength.

4 Reagents and materials

Laboratory water should meet the requirements of Grade 3 water in GB/T 6682-2008. The reagents used in this standard are all separate unless otherwise specified.

Analyze pure.

5 Equipment

5.1 Volumetric flask. 100mL, 500mL, 1000mL, in line with the corresponding A-level requirements in JJG196-2006.

5.2 Pipette. 5.00mL, 10.00mL, in line with the corresponding A-level requirements in JJG196-2006.

6 Choice of solvent

Generally, water-soluble dyes choose water as the solvent, such as acid dyes, direct dyes, cationic dyes, water-soluble sulfur dyes, and basic dyes.

? etc.

Note. The basic dyes and cationic dyes need to be added with an appropriate amount of acetic acid to aid solubility.