



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

GB/T 3920-2024

Replacing GB/T 3920-2008

Textiles - Tests for colour fastness - Colour fastness to rubbing

纺织品 色牢度试验 耐摩擦色牢度

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Table of Contents

Foreword	3
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Principle	8
5 Equipment and materials	8
6 Reagents	9
7 Test sample	9
8 Procedure	9
9 Assessment	11
10 Test report	11
Bibliography	12

Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents.

This document replaces GB/T 3920-2008 Textiles - Tests for colour fastness - Colour fastness to rubbing. Compared with GB/T 3920-2008, except for structural adjustment and editorial changes, the main technical changes are as follows:

- Add the tolerance of the rectangular rubbing head size [see 5.1a)];
- Add the description of "with the long side parallel to the warp direction" (see oxide water-resistant fine sandpaper to "particle size of P600" (see 5.3; 4.3 of the 2008 edition);
- Add "balance" in "equipment and materials" (see 5.5);
- Add a chapter on "Reagents" and supplement the requirements for test water (see Chapter 6);
- direction of the sample at 45° to the warp and weft directions of the fabric" (see 7.1; 5.1 of the 2008 edition);
- Add the description of "With consultation among the relevant parties, conditioning may also be carried out in the optional standard atmosphere specified in GB/T 6529, which shall be stated in the test report. Place each sample and rubbing cloth on a sieve or perforated rack for conditioning." (see 7.3);
- Add the description of "Prepare two groups of samples, one for dry rubbing test and the other for wet rubbing test." (see 8.1);
- Change the description of the test steps for wet rubbing color fastness (see 8.3;
- Change "water content" to "level of soak", and add the calculation formula for level of soak (see 8.3; 6.3 of the 2008 edition);
- rubbing cloth that may affect the rating." to the assessment part (see 9.1; 6.2 of the 2008 edition);
- Add descriptions of "test atmospheric conditions", "If the sample is yarn and is woven into a fabric, indicate its organizational structure" and "any deviation from this document and any anomalies in the tests" in the test report (see Chapter 10).

This document adopts ISO 105-X12:2016 Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing by modification.

Compared with ISO 105-X12:2016, this document has the following structural adjustments:

- Add "Terms and definitions" (see Chapter 3);
- Add "Reagents" (see Chapter 6);

The technical differences between this document and ISO 105-X12:2016 and their reasons are as follows:

- Use the normatively referenced GB/T 251 to replace ISO 105-A03 (see 5.4), GB/T 6151-2016 to replace ISO 105-A01:2010 (see 9.3), GB/T 6529 to replace ISO 139 (see 7.3 and 7.4), GB/T 33729 to replace ISO 105-F09 (see 5.2), and add GB/T 6682 (see Chapter 6) to adapt to our country's technical conditions;
- Adjust the verification test to "Note" (see Chapter 5; Chapter 4 of ISO 105-
- Adjust the "Note" about using other rubbing color fastness testers to 5.1 (see 5.1) to make the statement clearer;
- Add the tolerance of the rectangular rubbing head size [see 5.1a)], to unify the test conditions;
- Add the description of "with the long side parallel to the warp direction" (see 5.2), to unify the test operation;
- Add "balance" in "Equipment and materials" (see 5.5) for the determination of level of soak in wet rubbing test;
- Supplement the requirements for test water (see Chapter 6) to unify the test conditions;
- Add the description "Prepare two groups of samples, one for dry rubbing test

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- Add content on the calculation and adjustment method of rubbing cloth level of soak (see 8.3) to make the statement clearer;
- Add descriptions of "test atmospheric conditions", "If the sample is yarn and is woven into a fabric, indicate its organizational structure" and "any deviation from this document and any anomalies in the tests" in the test report (see Chapter 10), to clarify the test conditions.

Textiles - Tests for colour fastness - Colour fastness to rubbing;

- Add a description of "use the gray scale for staining" in the chapter "Principle" (see Chapter 4);
- Add recommendations on the specifications of water-resistant fine sandpaper (see 5.3);
- Remove the note on the use of other levels of soak (see 6.3 of ISO 105-
- Add a note on "squeezing device" (see 8.3);
- Refine the description of the wet rubbing color fastness test procedure (see
- Add the note "During assessment, the degree of staining of the halo part is not taken into account." (see Chapter 9).

Please note that some of the contents of this document may involve patents. The issuing organization of this document is not responsible for identifying patents.