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

GB/T 33153-2025

Replacing GB/T 33153-2016

**Imaging materials - Reflection colour photographic prints - Test
print construction and measurement**

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms, definitions and symbols	
3.1 Terms and Definitions	
3.2 Symbol	
4 Requirement	
5 Digital File Preparation	
5.1 Digital test file usage	
5.2 General requirements for digital test documents	
5.3 Preparing digital test files	
5.4 Printing Target Uniformity	
6 Generate print target information	
6.1 Digital Printing Preparation	
6.2 Preparation of traditional gelatin silver salt photosensitive materials	
6.3 Configuring the Printing System and Generating Printing Target Information	
6.4 Post-printing processing of printed products	
7 Print target hold and measurement conditions	
7.1 Measuring time	
7.2 Control and measurement conditions	
8 Measurement of test patches	
8.1 Measurement properties	
9 Color Change Calculation	
9.1 Overview	
9.2 Primary Color Block Density Change Rate	
9.3 Density change rate of secondary color blocks (mixed color blocks)	
9.4 Density change rate of composite neutral color blocks	
9.5 Color Balance Changes of Composite Neutral Color Blocks	
9.6 Color Balance Changes of Secondary (Mixed) Color Patches	
9.7 Colorimetric determination of the color balance of the Dmin color block	
10 Report	

10.1 Overview

10.2 Test report

Appendix A (Normative) Requirements for sRGB encoding of test target color patch values, optical density (OD) tolerances, and color patch selection process

A.1 Overview

A.2 sRGB Coded Values for sRGB Linear Targets

A.3 sRGB code values for CIELAB constant chromaticity targets

A.4 Optical density tolerance

A.5 Color Block Selection Method

Appendix B (Informative) Interpolation Method for Step Wedge Exposure

Reference

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 33153-2016 "Image material reflective color photography test photo structure and measurement" and Compared with GB/T 33153-2016, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Deleted some terms and definitions (see 3.1 to 3.6 and 3.8 of the 2016 edition);
- b) Added "Symbol" (see 3.2);
- c) Added "Analysis requirements for color changes during image stability" (see Chapter 4);
- d) Deleted the content related to the use of digital test documents (see 5.1 of the 2016 edition);
- e) Deleted the content related to general requirements for digital test documents (see 5.2 of the 2016 edition);
- f) Deleted the content of the image printing stability test for digital files - CMYK (see 5.3.3 of the 2016 edition);
- g) Deleted the content of preparing test files for the stability of digital image forming materials (see 5.4 of the 2016 edition);
- h) Deleted the content related to target printability (see 5.4, 5.5 of the 2016 edition);
- i) Deleted the uniformity under laboratory conditions (see 5.5 of the 2016 edition);
- j) Deleted the content related to measurement and control conditions, and added ozone

sensitivity test requirements (see 7.2, 7.2 of the 2016 edition);

k) Added test color patch measurement, color change calculation, and reporting (see Chapters 8 to 10);

l) Added R, G, B, C, M, Y and neutral color block values and neutral color block encoding values in sRGB linear targets (see Appendix A

Table A.1, Table A.2);

m) Changed the R, G, B, C, M, and Y color block values in the CIELAB colorimetric target (see Table A.5 in Appendix A, 2016 edition).

Table A.3, Table A.4);

n) Added Dmax exception processing method and color block selection processing equation (see A.5.5, A.5.6).

This document is equivalent to ISO 18944:2018 "Preparation and measurement of test prints for reflective colour photography of imaging materials".

Introduction

This document is one in a series of standards covering the physical properties, stability, and durability of imaging materials.

This document governs factors related to print target preparation and final print target measurement that may cause the measurement the color and density values change.

The requirements in this document are used in conjunction with test methods where test data can be shared publicly, with the intention that test results can be used in conjunction with alternative test equipment.

Repeat during application.

Topics discussed in this document include.

---Digital file preparation;

--- Digital test file use;

---Print target uniformity;

---Printing system configuration and control;

---Test printing conditions;

---Measurement time and measurement conditions;

---Color patch, sRGB coded color patch value of test target and corresponding color patch selection;

---Density and colorimetric calculations of color changes.

Test target design and test print sample preparation are important factors in characterizing the image stability of printed materials, i.e., changes in color properties, such as Minimal density variations, as well as lightness, hue, and chroma of colored and neutral patches.

The test goal is to select a specific color sample from the color space that represents the performance of the image stability in the expected instance.

Other important factors in this characterization process are the definition of the color attributes to be evaluated, the construction of indices, and the statistical evaluation of the data analysis.

Selection, such as the average, median or maximum variation of a single color or all colors. Unless the observer has formed an inner visual judgment, the measured in this document, the color change properties of color patches and neutral patches are defined and calculated using the density method.

Small density changes are characterized by colorimetry. The purpose of evaluating color property changes is to Provides a terminal system that can be used for the image life specification that is being developed in the series of photo life specification standards. Formerly color attributes the definitions are contained in various test methods and are now incorporated into this document.

Image material reflective color photography Preparation and measurement of test photos

1 Scope

This document specifies requirements and recommendations for digital test file content, printer settings, and printing procedures for generating print targets.

Standard and specification for test methods for image stability of reflective color photographic prints.

In addition, this document specifies the measurement procedure for the test color patches and how the color attributes are calculated during a given image stability test.

Sexual changes.

The definition of statistical procedures for data reduction and the translation of these changes into psychophysical endpoint levels are beyond the scope of this document, but the results obtained using the methods defined in this document can provide for appropriate statistical evaluation and End point system.