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

GB/T 44035-2024

**Imaging materials - Pictorial colour reflection prints - Methods
for evaluating image stability under outdoor conditions
(English Translation)**

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Appendix A (Normative) Laboratory Accelerated Aging Test Spectral Power Distribution

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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 is equivalent to ISO 18930:2011 "Method for evaluating outdoor image stability of color photographs of imaging materials":

The following minimal editorial changes were made to this document:

--- Added notes to Tables A:1 and A:2 in Appendix A:

Introduction

Digitally printed images are exposed to outdoor applications in many cases and are subject to certain aging corrosion: This document specifies the test image stability Standard test procedure for evaluating image stability after actual outdoor weathering or accelerated weathering in the laboratory:

The desire to obtain test results more quickly (than actual outdoor) led to the development of simulated weathering tests: However, accelerated corrosion weathering tests are only Testing is only valuable when it is correlated with actual outdoor performance: Factors that can cause image quality degradation in outdoor testing include:

Including light, moisture, heat, ozone, local climate and day and night changes: In the accelerated simulation test, key factors such as light, moisture and heat are very important:

Yes: Using a xenon arc lamp with a daylight filter as the spectral power distribution simulation of sunlight has become the industry standard procedure for the most accurate simulation:

A xenon arc lamp and a "daylight" filter, combined with water spray and high temperature, form the basis of laboratory accelerated weathering testing:

The accelerated weathering test procedures described are intended to provide a means of predicting performance under actual outdoor exposure:

Image material color photo outdoor image stability Evaluation Method

1 Scope

This document describes the test equipment and test procedures for testing the color stability of color images in outdoor conditions:

Instead, it provides a way to measure changes in images during image aging and indicates the images that should be reported:

The method enables the user to determine the test endpoint for the simulated effect:

This file is for images produced from digital print media: For example:

---Printing on coated paper, coated and uncoated transparent or opaque films, vinyl, polyester, synthetic paper and other plastic substrates products, laminated and non-laminated printed photographs;

--- Dye-based and pigment-based inkjet printing of photographs using water-based, solvent-based, phase-change or ultraviolet (UV) curable inks;

---Thermal imaging dye transfer photos;

---Sublimation photos;

---Digitally printed dye diffusion transfer photos;

---Liquid and dry toner electrostatic printing photos;

---Liquid toner electrostatic printing photos;

---Digital prints made from traditional chromogenic and silver dye-fixed photographic materials;

---Color thermal imaging photos:

In these digital prints, the layout of ink is controlled by digital pixel information, and all the printing system's There are settings and controls: In contrast, with many analog printing systems, the control of the ink layer thickness can be adjusted manually: Outdoor the window graphics for indoor spaces, where sunlight is filtered by a layer of glass, comply with ISO 18937:

This document does not include procedures for testing the physical stability of images, supports, or binding materials: However, in some cases, Stability, some physical changes of materials (such as support body becomes brittle, image layer cracks, or image layer falls off from support body, etc.) will determine the stability of photo materials:

The service life of the material:

Note: Image print stability results are determined by the printer model, ink set, print mode, print resolution, and media combination:

and/or media, and are not intended for images produced with other printer models, ink sets, print modes, print resolutions, and media combinations:

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document:

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document:

gy-Densitymeasurements-Part 3:Spectralconditions) Note: GB/T 11501-2008 Photographic density measurement Part 3: Spectral conditions (ISO 5-3:1995, IDT) ISO 13655 Graphic technology - Spectrum measurement and colorimetric calculation of image art Note: GB/T 19437-2004 Printing technology Spectral measurement and colorimetric calculation of printed images (ISO 13655:1996, IDT) ISO 11664-4 Colorimetry-Part 4: CIE1976 L*a*b* color space