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

GB/T 17001.6-2022

**Anti-counterfeiting printing ink - Part 6: Infrared excitation
fluorescence anti-counterfeiting printing ink**

防伪油墨 第6部分：红外激发荧光防伪油墨

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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 of Standardization Documents" drafted. This document is part 6 of GB/T 17001 "Anti-counterfeiting ink". GB/T 17001 has released the following parts.

--- Part 1: UV-excited fluorescent anti-counterfeiting ink;

2. Magnetic anti-counterfeiting ink (GB/T 18751-2002);

3. Thermochromic anti-counterfeiting ink (GB/T 18752-2002);

4. Sunlight-induced color-changing anti-counterfeiting ink (GB/T 18753-2002);

6. Infrared excitation fluorescent anti-counterfeiting ink. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the National Anti-counterfeiting Standardization Technical Committee (SAC/TC218). This document is drafted by: Beijing Jinchun Westveco Security Printing Co., Ltd., China Security and Anti-Counterfeiting Document Development Center, Wuxi Xinguang Printing & Security Co., Ltd. Counterfeit Technology Co., Ltd., National Anti-counterfeiting Product Quality Supervision and Inspection Center, Shandong Taibao Information Technology Group Co., Ltd., Xi'an Xizheng Printing Co., Ltd. Co., Ltd., Beijing Wanyang Anti-Counterfeiting Technology Co., Ltd., Beijing Tomorrow Zhiguang Technology Co., Ltd., Beijing Boda Green High-Tech Co., Ltd., Shandong Lvxinsiyuan Anti-counterfeiting Technology Co., Ltd., Guangdong Qiaosheng New Material Technology Co., Ltd. The main drafters of this document. Wang Yongjie, Wang Qiuju, Zhou Tengfei, Luo Tong, Gong Longxian, Tang Weichong, Yang Na, Huang Tiexiang, Wang Guoping, Zhao Ying, Fan Guanbao, Yao Ruigang, Xu Dachuang, Yu Chi, Li Ge, Zhao Lirong, Luo Jun, Long Liang.

As a base material for anti-counterfeiting products, anti-counterfeiting ink is widely used in national securities, certificates, general printed matter and commodity packaging. and other fields, with a wide range of applications. The formulation of this series of national standards

can further regulate the production, use and testing of anti-counterfeiting inks, which is very important for safeguarding the country. Door security, social financial security, product supervision and management and product quality improvement are of great significance. This series of standards is mainly based on anti-counterfeiting oil Ink production process and anti-counterfeiting characteristics are classified. GB/T 17001 "Anti-counterfeiting ink" is expected to consist of 9 parts.

--- Part 1: UV-excited fluorescent anti-counterfeiting inks. The purpose is to give the requirements and test methods of UV-excited fluorescent anti-counterfeiting inks.

2.Magnetic anti-counterfeiting ink (GB/T 18751-2002 included). The purpose is to give the requirements and experiment method.

3.Thermochromic anti-counterfeiting ink (included in GB/T 18752-2002). The purpose is to provide thermochromic anti-counterfeiting ink anti-counterfeiting features and grading methods.

4.Sunlight-induced color-changing anti-counterfeiting ink (GB/T 18753-2002 included). The purpose is to give sunlight-induced discoloration Requirements and test methods for anti-counterfeiting inks.

5.Pressure-sensitive anti-counterfeiting inks. The purpose is to give the requirements and test methods of pressure-sensitive anti-counterfeiting inks.

6.Infrared excitation fluorescent anti-counterfeiting ink. The purpose is to give the requirements and test methods of infrared excitation fluorescent anti-counterfeiting ink.

1 Scope

GB/T 17001.6-2022 is the Chinese national standard on anti-counterfeiting printing ink - part 6: infrared excitation fluorescence anti-counterfeiting printing ink, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 9 March 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2022. Classification: ICS 13.310, CCS A90. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification, requirements, test methods, inspection rules, signs, packaging, transportation Transportation, storage and environmental protection, hygiene requirements. This document applies to infrared up-conversion excited fluorescent anti-counterfeiting inks used in anti-counterfeiting graphics and texts in printed matter.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the dated edition applies to this document; for undated references, the latest edition (including all amendments) applies to this document document.

GB/T 250-2008 Textile color fastness test gray sample card for evaluating discoloration

GB/T 730-2008 Quality control of blue wool standard samples (1~7) for color fastness test of textiles

GB/T 3186 Sampling of raw materials for paints, varnishes and paints and varnishes

GB/T 13217.1 Test method for ink color and tinting strength

GB/T 13217.4 Ink Viscosity Test Method

GB/T 13217.5 Test method for initial drying of liquid ink

GB/T 13217.7 Test Method for Adhesion Fastness of Liquid Ink

GB/T 14624.3 Test method for fluidity of offset printing ink

GB/T 18723 Viscometer for printing technology to determine the viscosity of paste ink and binder

GB/T 18724 Determination of the resistance of printing technology printed matter and printing ink to various reagents

GB/T 19437-2004 Spectral measurement and chromaticity calculation of printed images in printing technology

GB/T 23649-2009 Optical, geometric and metrological requirements for reflection densitometers for printing technology process control printing

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Under the excitation of near-infrared (760nm~1060nm), the ink emits fluorescence in the visible light range, and can be detected and identified by the instrument its imprint.

3.2 Standard sample referencesample Sample A sample to compare the quality of the infrared excitation fluorescent anti-counterfeiting ink (3.1) as confirmed by both the supplier and the buyer.