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

GB/T 13217.7-2023

Replacing GB/T 13217.7-2009

Test method for adhesion to substrate of ink with tape

油墨附着力检验方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document is Part 7 of GB/T 13217. GB/T 13217 has published the following parts.

---GB/T 13217.1 Testing method for ink color and tinting strength;

---GB/T 13217.2 Liquid ink gloss test method;

---GB/T 13217.3 Ink fineness inspection method;

---GB/T 13217.4 Ink viscosity test method;

---GB/T 13217.5 Liquid ink initial drying test method;

---GB/T 13217.7 Ink adhesion test method;

---GB/T 13217.8 Liquid ink anti-adhesion test method. This document replaces GB/T 13217.7-2009 "Test Method for Adhesion Fastness of Liquid Ink". Compared with GB/T 13217.7-2009, except In addition to structural adjustments and editorial changes, the main technical changes are as follows:

---Added manual stripping method (see Chapter 5);

---Added circle drawing method (see Chapter 6);

---Added cross-hatch method (see Chapter 7). Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed by China Light Industry Federation. This document is under the jurisdiction of the National Ink Standardization Technical Committee (SAC/TC127). This document was drafted by: Zhejiang Yongzai Ink Co., Ltd., Shanxi Jingjingke Industry and Trade Co., Ltd., Zhejiang Huabao Ink Co., Ltd., Huangshan Xinli Ink Technology Co., Ltd., Hangzhou Hua Datian Technology Co., Ltd., Bauhinia Ink (Zhongshan) Co., Ltd., Hangzhou Ink Co., Ltd. Co., Ltd., Chengdu Tuozhan New Materials Co., Ltd., Shanghai Peony Ink Co., Ltd., Hangzhou Hivit Chemical

Technology Co., Ltd., Zhejiang Pujiang Yongjin Industry and Trade Co., Ltd., Beijing Technology and Business University, Beijing Institute of Graphic Arts, Anhui Huayi Rixin Technology Co., Ltd., Nanjing Tianshi New Materials Technology Co., Ltd. Technology Co., Ltd., Shandong Bright Ink Co., Ltd., National Printing and Decoration Products Quality Supervision and Inspection Center, Shengweike Ink (Shanghai) Co., Ltd. Company, Shanghai DIC Ink Co., Ltd., Suzhou Code Education Technology Co., Ltd., and Xi'an Banknote Printing Co., Ltd. The main drafters of this document. Wu Min, Wang Chongsheng, Tao Ligu, Pan Jihong, Lu Deshui, Li Juan, Ma Zhiqiang, Wang Qiang, Chen Aijun, Xu Shaohong, Liu Guowen, Xin Xiulan, Huang Beiqing, Zhao Xinyan, Yu Haikuo, Zhang Fengnian, Zhang Liming, Yang Qing, Shen Jian, Xiao Xuejun, Wei Lixia. The previous versions of this document and the documents it replaces are as follows:

---First published as GB/T 13217.7-1991 in 1991, first revised in 2009;

---This is the second revision.

1 Scope

GB/T 13217.7-2023 is the Chinese national standard on test method for adhesion to substrate of ink with tape, in the field of paint and colour industries. 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 6 August 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 March 2024. Classification: ICS 87.080, CCS Y44. 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 test method for ink adhesion. This document is applicable to the adhesion determination of various types of inks used on plastic films, aluminum foil, tinplate, paper and other substrates. The adhesion of printing ink, gravure ink black, flexo printing ink, screen ink, inkjet printing ink and other inks is measured by disc peeling method and manual peeling. The adhesion of iron printing ink is determined by the circle method or the crosshatch method.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments)

applies to this document.

GB/T 7707-2008 Gravure decorative prints

GB/T 10335.1-2017 Coated paper and cardboard coated art printing paper (coated paper)

GB/T 38153.1 Laboratory preparation of printing technology test samples Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 offset printing ink
offset ink It is suitable for printing using a flat plate where the graphic part and the blank part are almost on the same plane, and transferring ink through a blanket. A general term for inks. [Source: GB/T 15962-2018,2.7]

3.2 drying The entire process of converting a thin layer of ink into a solid ink film. [Source: GB/T 15962-2018,4.56]

3.3 Oxidative conjunctival drying
oxidation drying The process in which ink absorbs oxygen and undergoes oxidative polymerization to form a solid ink film. [Source: GB/T 15962-2018,4.57]

3.4 evaporation drying
evaporation drying The process in which ink solidifies into a solid ink film due to solvent evaporation and self-flowing state. [Source: GB/T 15962-2018,4.58]