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

GB/T 13217.8-2026

Replacing GB/T 13217.8-2009

Test method for blocking resistance of ink

油墨抗粘连检验方法

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Table of Contents

Foreword	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Principle	
5 Weight pressure test method	
6 Test method using the set-off resistance tester	

Foreword

This document was issued on 30 July 2026 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 February 2027.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies.

It is classified under ICS 87.080 and Chinese classification Y 44.

The document runs to 11 pages. The identification, the dates, the classification and the table of contents on this page are taken from the cover and the printed contents of the standard itself.

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

This document is Part 8 of GB/T 13217. The following parts have been published: GB/T 13217.1-2020 Test method for colour and colour strength of ink; GB/T 13217.2-2024 Test method for gloss of ink; GB/T 13217.3-2022 Test method for fineness of ink; GB/T 13217.4-2020 Test method for viscosity of ink; GB/T 13217.5-2023 Test method for drying of ink; GB/T 13217.7-2023 Test method for adhesion of ink; GB/T 13217.8-2026 Test method for blocking resistance of ink.

This document replaces GB/T 13217.8-2009 "Test method for blocking resistance of liquid ink". Compared with the 2009 edition, apart from structural adjustments and editorial changes, the main technical changes are as follows:

-- a method of preparing the test print has been added (see 5.3.1 and 6.3.1);

- the drying method and drying time have been added (see 5.3.2 and 6.3.2);
- a test method using the set-off resistance tester has been added (see Clause 6).

Attention is drawn to the possibility that some elements of this document may be the subject of patent rights. The issuing body assumes no responsibility for identifying them.

This document was proposed by the China National Light Industry Council and is under the jurisdiction of the National Technical Committee on Printing Ink of Standardization Administration of China (SAC/TC 127). The drafting organisations include Zhejiang Yongzai Ink, Hanghua Ink, New Oriental Ink, the Shenzhen Academy of Metrology and Quality Inspection, China Banknote Ink, Guangzhou Ditian Printing Materials, Guangdong Jiajing Technology, Huangshan Xinli Ink Technology and Beijing Technology and Business University.

This document was first issued in 1991 as GB/T 13217.8-1991 "Test methods for gravure plastic ink - Blocking resistance test"; on the first revision in 2009 the title was changed to "Test method for blocking resistance of liquid ink"; the present edition is the second revision.

From the Introduction: ink is used across education, news, packaging and decoration and the modern office. Judging its quality objectively and fairly matters both to the producer and to the trade, and the test method is the basic means by which quality is characterised: reliable and consistent test methods are what make test data comparable. GB/T 13217 was written to build a complete system of ink test methods; it is planned in seven parts, each covering a different property.

1 Scope

GB/T 13217.8 is the Chinese test method for the blocking resistance of ink: whether a printed sheet sticks to the sheet on top of it in the stack or the reel. Blocking is a defect that appears after the job has left the press, in a warehouse or a container where the temperature is higher than anyone planned for, and by then the whole run is affected. The method reproduces the conditions deliberately: a print is prepared on the specified substrate, dried by the specified method, folded printed face to printed face, loaded, held at 50 degrees Celsius for a set time, and then examined. This edition adds a second route, using a set-off resistance tester, alongside the weight method of the 2009 edition, and it fixes how the test print is prepared and dried, which is where most of the disagreement between laboratories used to come from. It applies to paste inks and liquid inks, and similar products may use it as a reference. The 2026 edition replaces GB/T 13217.8-2009 and widens the scope beyond liquid inks.

2 Normative references

The contents of the following documents constitute indispensable provisions of this document through normative reference in the text. For dated references, only the edition

corresponding to that date applies. For undated references, the latest edition, including all amendments, applies.

GB/T 13217.5-2023 Test method for drying of ink.

GB/T 22374-2018 Floor coating materials.

GB/T 38153.1, GB/T 38153.2 and GB/T 38153.3 Graphic technology - Laboratory preparation of test prints: paste inks, liquid inks and screen inks.

QB/T 2826-2017 Ultraviolet curing offset inks.

3 Terms and definitions

This document contains no terms and definitions requiring definition.

4 Principle

A test print is prepared on the specified or agreed printing substrate by the specified preparation and drying method. The print is then folded on itself so that the printed faces touch, or, where the print cannot be folded and has to be cut, laid printed face to printed face; a specified pressure is applied on top; the assembly is left at the specified temperature for a sufficient time; and after the pressure has been removed the printed surfaces are examined for blocking.

5 Weight pressure test method

5.1 Tools and materials. A printing substrate suited to the ink under test; an ink knife; translucent millimetre graph paper 20 mm by 20 mm; a glass plate 20 mm by 20 mm by 2 mm; a round glass 30 mm to 50 mm in diameter and 2 mm thick; a 2000 g weight; a stopwatch; an electric blast drying oven working from room temperature to 300 degrees Celsius; and a cleaning solvent, of the same system as the ink under test.

5.2 Test conditions. The test is carried out at 50 degrees Celsius plus or minus 2 degrees, or at an agreed temperature plus or minus 2 degrees.

6 Test method using the set-off resistance tester

6.3.1 Preparation of the test print. Gravure inks are printed either by the wire bar method of 6.1.3 of GB/T 13217.1-2020 or by the method described in GB/T 38153.2; in case of arbitration the wire bar method of GB/T 13217.1-2020 applies. Flexographic inks are printed either by the hand proofer method of 6.1.4 of GB/T 13217.1-2020 or by the method described in GB/T 38153.2; in case of arbitration the hand proofer method applies. Offset inks are printed either by the drawdown blade method of 6.1.2 of GB/T 13217.1-2020 or by the method described in GB/T 38153.1; in case of arbitration the drawdown blade method

applies.

6.3.2 Drying. The drying method and the drying time are specified for each ink system, a point the 2009 edition left open and the main reason results from different laboratories did not agree.

The clause then covers the loading of the print in the set-off resistance tester, the holding time and temperature, and the examination and rating of the result. This whole method is new in the 2026 edition; the 2009 edition had only the weight method of Clause 5.