

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

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**Technical requirement for environmental labeling products.
Printing. Part 2: Commercial form printing
(English Translation)**

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8 Selenium (Se) mg/kg ≤ 500

10 Ethanol mg/m² ≤ 50.0

11 Isopropanol mg/m² ≤ 5.0

12 Acetone mg/m² ≤ 1.0

13 Butanone mg/m² ≤ 0.5

14 Ethyl acetate mg/m² ≤ 10.0

15 Isopropyl acetate mg/m² ≤ 5.0

16 N-butanol mg/m² ≤ 2.5

17 Propylene glycol methyl ether mg/m² ≤ 60.0

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25 Use recycled pulp to account for more than 30% of paper 25

Foreword

To implement the Environmental Protection Law of the People's Republic of China, reduce the impact of commercial paper printing on the environment and human health, and improve the environment.

This standard is developed for quality, effective use and resource conservation.

This standard regulates the printing of raw and auxiliary materials for commercial paper, the environmental control of the printing process and the limit of harmful substances in printed products.

This standard is the first release.

This standard applies to China Environmental Labeling Product Certification.

This standard was formulated by the Science and Technology Standards Department of the

Ministry of Environmental Protection.

This standard is mainly drafted by. Environmental Protection Center of the Ministry of Environmental Protection, Donggang Co., Ltd., and UPM (China) Limited Company, Xi'an Xicui Printing Co., Ltd., Shanghai Inor Printing Co., Ltd., Shanghai Sun Machinery Co., Ltd., Guangdong Guanhao Gaoxin Technology Co., Ltd., Beijing Zhongyin Zhoujin Technology Co., Ltd., China Printing Technology Association, Beijing Green Business Culture Development Center.

This standard was approved by the Ministry of Environmental Protection on November 16, 2012.

This standard has been implemented since February 1, 2013.

This standard is explained by the Ministry of Environmental Protection.

Environmental labeling product technical requirements printing Part II. Commercial Paper Printing

1 Scope of application

This standard specifies the terms and definitions, basic requirements, technical contents and inspection methods for the printing of commercial papers for environmental labeling products.

This standard applies to all types of commercial paper printing.

2 Normative references

The contents of this standard refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB 6675 National Toy Safety Technical Specification GB/T 9851.4 Technical terminology - Part 4. lithographic terms CY/T 49.1 Commercial paper printing Part 1. General technical requirements CY/T 49.2 Commercial paper printing Part 2. Folding notes CY/T 49.3 Commercial paper printing Part 3. Rolled bills CY/T 49.4 Commercial paper printing Part 4. This type of note HJ 567 environmental labeling product technical requirements inkjet ink HJ/T 220 Environmental Labeling Product Technical Requirements Adhesive HJ/T 370 Environmental Labeling Product Technical Requirements Offset Printing Ink HJ/T 371 environmental labeling product technical requirements gravure ink and flexo ink YC/T 207 Determination of Volatile Organic Compounds in Cigarettes and Boxes - Headspace - Gas Chromatography

3 Terms and definitions

Established by CY/T 49.1, GB/T 9851.4, and the following terms and definitions apply to this standard.

Commercial form printing Based on the lithographic process, it combines the printing methods of letterpress, screen and digital processes...

4 Basic requirements

4.1

The quality of printed products should meet the requirements of national and industry standards such as CY/T 49.1~CY/T 49.4.

4.2

Pollutant emissions from production enterprises should meet the national or local requirements for pollutant discharge standards.

4.3

Production enterprises should strengthen clean production.

5.1 Requirements for printing raw materials

5.1.1

Ink should meet the following requirements.

5.1.1.1

The offset inks and UV-curable inks used shall comply with the requirements of HJ/T 370;

5.1.1.2

The flexo ink used shall comply with the requirements of HJ/T 371;

5.1.1.3

The inkjet ink used shall comply with the requirements of HJ 567.

5.1.2

The dampening solution must not contain methanol and the amount of alcohol added should be less than 5%.

5.1.3

Water based adhesives should be used.

5.1.4

Water based cleaners should be used.

5.2 The limit of harmful substances in printed products shall comply with the requirements of Table 1.

Table 1 Limits of harmful substances in printed products

Serial number unit limit 1 ?(Sb) mg/kg ≤ 60

2 Arsenic (As) mg/kg ≤ 25 3 ?(Ba) mg/kg ≤ 1000 4 lead (Pb) mg/kg ≤ 90

5 Cadmium (Cd) mg/kg ≤ 75 6 chromium (Cr) mg/kg ≤ 60

8 Selenium (Se) mg/kg ≤ 500

9 benzene mg/m² ≤ 0.01

18 N-propyl acetate mg/m² ≤ 50.0

19 4-methyl-2-pentanone mg/m² ≤ 1.0 20 toluene mg/m² ≤ 0.5 21 n-butyl acetate mg/m² ≤ 5.0 22 ethylbenzene mg/m² ≤ 0.25 23 xylene mg/m² ≤ 0.25 24 cyclohexanone mg/m² ≤ 1.0

5.3 The original and auxiliary materials required by Table 2 shall be used for printing, and the comprehensive evaluation score shall not be less than 60 points.

Table 2 Raw and auxiliary materials requirements for printing

Raw materials require scores to assign total scores Substrate Use papers certified for sustainable forests 25

25 Use recycled pulp to account for more than 30% of paper 25

Use chlorine-free bleached paper 25 Plate Select the plate size specification according to the width of the print 15 Use nano-plate or process-free plate 20 UV curing lamp is equipped with UV curing lamp according to the requirements of UV curing ink. 25 25 Wetting fluid Use alcohol-free wetting fluid 20 Use a wetting fluid with an alcohol addition of less than 2% Adhesive paste process using glue should meet the requirements of HJ/T 220 packaging water-based adhesive 10 10

5.4 The printing process should adopt the resource saving, energy saving and recycling measures required by Table 3. The comprehensive evaluation score should not be less than 60 points.

Table 3 Resource conservation, energy saving and recycling measures during the printing process

Process requires scores to assign total scores Prepress Optimize layout design, reasonable programming, digital printing to achieve a set of multiple spray 1 Using computer-to-plate (CTP) system (lithographic) 2 Resin plate direct plate making (CDI) system 0.5