

HJ

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

HJ 2539-2014

**Technical requirement for environmental labeling products.
Printing-Recess printing**

环境标志产品技术要求 印刷 第三部分 凹版印刷
(English Translation)

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Foreword

To implement the "People's Republic of China Environmental Protection Law", reducing the impact of intaglio printing on the environment and human health, the development of this standard.

This standard environmental requirements of raw materials and gravure printing process to make provision.

Lithographically printing processes and products in accordance with the "technical requirements for environmental labeling products Printing Part I. lithography" (HJ 2503-2012) implementation; commercial paper printing accordance with the "technical requirements for environmental labeling products Printing Part II. commercial paper printing" (HJ 2530-2013) implementation.

This standard is the first release.

This standard applies to Chinese environmental product certification mark.

This standard is developed by the Ministry of Environmental Protection Science, Technology organization.

This standard is mainly drafted by. Ministry of Environmental Protection and Development Center, China Printing Technology Association, China green cause cultural development center.

This standard Ministry of Environmental Protection September 28, 2014 for approval.

This standard shall be December 1, 2014 implementation.

The standard explanation by the Ministry of Environmental Protection.

Technical requirements for environmental labeling products Printing Part III. Gravure

1 Scope

This standard specifies the terms and definitions for environmental labeling products intaglio printing, basic requirements, technical contents, and testing methods.

This standard applies to paper, plastics and composite materials for the substrate of the gravure process and its products.

2 Normative references

The standard content of the following documents cited in the articles. For undated references, the effective version applies to this standard.

GB 9683 Hygienic standard for composite laminated food packaging bag GB/T 7707 intaglio decoration print GB/T 9851.1 printing technology terms - Part 1. Basic terminology GB/T 9851.5 printing technology - Part 5. Gravure term GB/T 18348 goods bar code bar code symbol print quality test YBB 00132002 pharmaceutical packaging composite film bags General CY/T 6 gravure product quality requirements and test methods HJ/T 220 Environmental Labeling Products Adhesives HJ/T 371 environmental labeling products technical requirements for gravure inks and flexographic inks

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Gravure recess printing

Printed version of the graphic part is below the non-printing graphic part. (GB/T 9851.5)

3.2 Substrates substrate

Receiving coloring agent/pigment (such as ink) final vector image. (GB/T 9851.1)

4 Basic requirements

4.1

printing quality should be consistent with GB/T 7707, GB/T 18348, CY/T 6 and other standards.

4.2

products are used in pharmaceutical packaging shall comply with the requirements of YBB 00132002, for food packaging products should conform to GB 9683 begging.

4.3

Pollutant emission of the pollutant emission standards should be consistent with the requirements of national or local regulations.

4.4

production enterprises should strengthen cleaner production.

5.1 Printing raw material requirements

5.1.1

The ink should comply HJ/T 371 requirements.

5.1.2

not use polyvinyl chloride (PVC) as a substrate.

5.1.3

inks, adhesives, thinners and cleaning agents may not use solvents listed in Table 1.

Table 1 solvent inks, adhesives, thinners and cleaning agents can not be used

The type of solvent

Benzene,, toluene, xylene, ethylbenzene Glycol ethers and esters Ethylene glycol monomethyl ether, ethylene glycol monomethyl ether acetate, ethylene glycol ether, glycol ether acetate, diethylene glycol butyl Ether acetate Halogenated hydrocarbons Dichloromethane, dichloroethane, chloroform, trichloroethane, carbon tetrachloride, dibromomethane, dibromoethane, Bromoform, tribromoethane, carbon tetrabromide Alcohols such as methanol Alkanes n-hexane Ketones 3,5,5-trimethyl-2-cyclohexen-1-one (isophorone) 5.2 printing process using raw materials required by Table 2, the comprehensive evaluation scores should be more than 60.

Table 2 of the printing process with raw material requirements

Raw material requirements allocation score total score

Note 1

Papery

Use through sustainable forest certified paper 25 Chlorine-free bleached paper 20 Use paper pulp accounted for 70% of the renewable (except as otherwise required by the State) 20 Plastics and composites material Using a single type of polymer, copolymer 25 the use of co-extruded film 25 Use biodegradable plastic 20 Plate Electronic or laser engraving plates 1515 Use non-cyanide plating Edition 1010 Use water-based ink ink 2525 not containing acetone, methyl ethyl ketone, cyclohexanone, pentanone tetramethyl ink 15 adhesive Solvent-free adhesive 25 Adhesives used in line with HJ/T 220 in waterborne

packaging adhesives claim 20

Note 1: The substrates were evaluated in accordance with the material, paper, plastics and composite materials are involved, according to the proportion of comprehensive evaluation score of not more than 25 minutes.

5.3 printing process using the energy saving measures required by Table 3, its comprehensive evaluation scores should be more than 60.

Table 3, the printing process of energy saving measures

Index score distribution process requires total score Resources saving Prepress Optimize the layout, imposition reasonable, improve material utilization 3 forum 10 printing process to establish and implement management systems 3 Establish and implement a management system 4 plates print the printing plate inking area network lines and dot predetermined depth of ink consumption 3 twenty two 3 with concentrated ink by printing and finishing process line 2 Using non-stop automatic feeding of the continuous production of 2 Built and run the ink viscosity automatic control device 2 Control tension adjustment reasonable printing speed 2 Built and run the printing line inspection equipment 2 Built and run independently driven device 2 Establish and implement a school version 2 system and materials Establish and implement a management system consumables 2 India Composite non-stop automatic feeding step 2 6 to establish and implement a school version, sign-like and semi-finished products consumption control system 1 Establish and implement each step of waste control system 3 Energy Saving Prepress with the specifications of the same series share plate 2 Reduce corona treatment 1 print Drying heat recovery 3 Establish and implement overprint, sign-like system time 3 Establish and implement the drying temperature, air volume control system 3 Establish and implement a system for version 2 time Drying heat recovery 3 Establish and implement complex, the cutting, bag system to replace the time-to-3 Establish and implement India conditioners, finished check sampling time System 2 the composite forum composite speed, adjust the drying temperature, air volume control 3 According to the material properties, heat sealing area and the speed bag, adjusting the processing temperature for 2 Drying heat recovery 4 Establish and implement finishing equipment energy consumption evaluation system 5 Establish and implement a system of finishing processes 4 Pollution Control and Waste it was recovered using Built and run the air pollution control facility 8 Establish and implement the remaining ink recycling system adhesive 6 Establish and implement a diluted cleaning plates, ink tank, ink tray, composite cable version, plastic box and plastic tray Agent recycling system 4 Built and run a waste recycling facility recycling 6 Establish and implement a waste management system to collect 5 Establish and implement a hazardous waste management system 6

Note 1: Evaluation respectively, according to the material after printing. Paper, plastics and composite materials are involved, according to the proportion of comprehensive evaluation score of not more than 13 points.