



National Standard of the People's Republic of China

GB 18581—2009
Replace GB 18581—2001

**Indoor decorating and refurbishing
materials—Limit of harmful substances
of solvent based coatings for
woodenware**

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Quarantine of the People's Republic of China
Standardization Administration of the People's Republic of China

Foreword

All technical contents of this standard are mandatory.

This standard replaces GB 18581—2001 *Indoor decorating and refurbishing materials—Limit of harmful substances of solvent based coatings for woodenware*.

There have been some significant changes in this standard over its previous version GB 18581—2001 in the following technical aspects:

- the scope is clearly limited to solvent-based polyurethane, nitrocellulose and alkyd coatings for woodenware for indoor decorating, refurbishing and for painting on an industrial scale (including primer and top coat paint) as well as solvent-based putty for woodenware in this standard;
- solvent-based putty for woodenware is added to the scope and its limits of harmful substances are specified;
- radiation cured coatings and unsaturated polyester putty are not included in the scope;
- methanol content is controlled for nitrocellulose coatings;
- item of sum of toluene and xylene is clearly defined as sum of toluene, ethyl benzene and xylene content;
- item of free toluene diisocyanate (TDI) content in the previous standard was changed into sum of free diisocyanates (TDI and HDI) content;
- item of halohydrocarbon content was added;
- the limits of volatile organic compounds (VOC) content, sum of free diisocyanates (TDI and HDI), sum of toluene, ethylbenzene and xylene, and benzene content of coatings become much stricter;
- definitions of volatile organic compounds and volatile organic compounds content are added, and the relevant test methods are established;
- methods for determining the contents of methanol and halohydrocarbon are established;
- methods for determining the contents of benzene, toluene, ethylbenzene and xylene are changed and improved;

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—methods for determining the contents of soluble heavy metals are changed and improved.

Annex A, Annex B and Annex C of this standard are normative.

This standard was proposed by China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of National Technical Committee of Paint and Pigment for Standardization.

This standard was mainly drafted by CNOOC Changzhou Paint & Coatings Industry Research Institute, Nippon Paint (China) Co., Ltd., ICI Swire Paints (China) Ltd., Guangdong Huarun Paints Co., Ltd., Guangdong Carpoly Chemical Co., Ltd., Bayer Material Science Trading (Shanghai) Co., Ltd., Tianhuan Polyurethane (Tianjin) Co., Ltd., Sankeshu Paint Joint-Stock Limited Company, China Paint MFG. (Shenzhen) Co., Ltd., Zhejiang Tiannv Group Paint Co., Ltd. and Shenzhen Guangtian Environmental Friendly Coating Co., Ltd.

This standard was co-drafted by Shenzhen Zhanchenda Chemicals Co., Ltd., Dongguan Taiho Paint Products Co., Ltd., Jiangsu Elephant East Asia Paint Co., Ltd., Hengchang Petrochemical Industry Co., Ltd., Sopel Chemical (Shanghai) Co., Ltd., Nanjing Tianxiang Coatings Co., Ltd., Guangdong Badese Chemical Co., Ltd., Chongqing Sanxia Paint Co., Ltd., Jiangsu Changjiang Paint Co., Ltd., Changzhou Guanghui Chemicals Co., Ltd., Sanyin Paints (Shanghai) Co., Ltd. and Guangdong Hualong Coating Industry Co., Ltd.

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Previous versions replaced by this standard:

—GB 18581—2001.

Indoor decorating and refurbishing materials—Limit of harmful substances of solvent based coatings for woodenware

1 Scope

This standard specifies the limit requirements, test methods and inspection rules of substances harmful to human bodies and environment contained in solvent-based polyurethane, nitrocellulose and alkyd coatings and putties for woodenware for indoor decorating and refurbishing, and it also specifies the package marking, application safety and protection of the products.

This standard is applicable to solvent-based polyurethane, nitrocellulose and alkyd coatings for woodenware for indoor decorating and refurbishing and for painting on an industrial scale (including primer and top coat paint) as well as solvent-based putty for woodenware; but it is not applicable to radiation cured coatings and unsaturated polyester putty.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this national standard. For dated reference, subsequent amendments (excluding correction of error) to, or revisions of, any of these publications do not apply. However, parties to agreements based on this national standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

GB/T 1250 *Rules for expression and judgment of limiting values*

GB/T 1725—2007 *Paints, varnishes and plastics—Determination of non-volatile matter content* (ISO 3251:2003, IDT)

GB/T 3186 *Paints, varnishes and raw materials for paints and varnishes—Sampling* (GB/T 3186—2006, ISO 15528:2000, IDT)

GB/T 6750—2007 *Paints and varnishes—Determination of density—Pyknometer method* (ISO 2811-1:1997, *Paints and varnishes—Determination of density—Part 1: Pyknometer method*, IDT)

GB/T 9750 *Marks for package of coating products*

Note: This is an official translation of the Chinese (GB 18581—2009). The Chinese version shall prevail in case of any technological contradiction between the English and Chinese versions.