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

GB 19340-2014

Replacing GB 19340-2003

Adhesives for footwear and case and bag

鞋和箱包用胶粘剂

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Table of Contents

1	Scope
1.0	Peel strength/(N/mm) $\geq$
1.2	Accelerant DM
1.5	Accelerant M
1.8	Creep/mm $\leq$
2	Normative references
2.0	Accelerant TMTD
3	Requirements
4.0	Heat aging resistance/(N/mm) $\geq$
5	Inspection Rules
5.0	Stearate
5.1	Inspection classification
5.1.2	Type inspection
5.3	Sampling
10.0	Sulfur
20.0	Oil (20)
	Appendix A
	Appendix B
	Appendix C
	Appendix D

Foreword

3.4 This standard is mandatory, the rest are recommended. This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB 19340-2003 "shoes and bags with adhesive" Compared with GB 19340-2003, the main technical changes are as follows:

- Modify the scope (see Chapter 1, Chapter 1 of the 2003 edition);
- Modify the adhesive limit of harmful substances requirements (see 3.4, 2003 Version 3.4);
- Revised Appendix A (see Appendix A, 2003 edition Appendix A);
- Original Appendix B and Appendix C of the original and the new Appendix B (see

Appendix B, 2003 edition Appendix A and Appendix B);

--- Another Added Appendix C Recommended adhesion test material; Added Appendix D

--- Another method of measuring shoe aqueous polyurethane adhesives of total volatile organic content (VOC) were specification. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee adhesive (SAC/TC185) centralized. This standard was drafted. Shanghai Institute of Rubber Products, Zhejiang Academy of quality testing, Yutian Zhuhai Chemical Co., Ltd. The main drafters of this standard. Golden Satellite, New Zhao, Li Min, Lin Huayu. This standard replaces the standards previously issued as follows:

--- GB 19340-2003. Shoes and bags with adhesive Warning. This standard does not include all of the safety issues associated with the user, the user's responsibility prior to use to establish the relevant safety and health The use of the terms and provisions established in order to meet the relevant provisions of the State (such as the concentration of harmful substances in the air of workplace, etc.).

1 Scope

GB 19340-2014 is the Chinese national standard on adhesives for footwear and case and bag, in the field of rubber and plastic industries. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 24 July 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 May 2015. Classification: ICS 83.180, CCS G39. 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.

2 Leather SBR1/SBR1 SBR2/SBR2 NBR/NBR SBSR/SBSR PVC/PVC Leather 1/SBR1 sample used to determine the surface layer of the adhesive for most materials

--- leather footwear industry with the adhesive properties. Used to determine when the use of more than 1 leather body strength adhesive recommended test material leather 2, SBR1, SBR2, NBR, SBSR Recommended test specimens and PVC material two identical. Leather can be 1/SBR1 sample (such as polychloroprene adhesives) or leather 1/PVC sample (such as polyurethane adhesive) to creep Variable peel test (50 °C ± 2 °C).

1.8 Creep/mm <=

15.0 These requirements relate only adhesive properties under normal conditions, wear shoes. For additional need to withstand load and (or) other external conditions Special

footwear, such as safety shoes, work shoes or sneakers, subject to the appropriate requirements and other targeted additional testing.

3.2 Selection adhesion test material Adhesion test material and the bonding process can collaborate designated by the manufacturer and user, but not less than the adhesive properties of the corresponding items in Table

1 Index value. An adhesive which the results of a particular test with the test material can not be obtained unconditionally applied to other materials up shoes. Must This kind of adhesive used to test the actual shoe materials, to ensure that on the table to meet the requirements. Material adhesion test of a material according to the provisions of Appendix A Other tests may also refer to Appendix C Recommended materials.

3.3 In addition to targeting only used in the process, the peel strength of the bags with adhesive is not less than 2.0N/mm. Test material and bonding process may be made Manufacturers and users specified.

3.4 adhesive harmful substances requirements Shoes and bags with adhesive limit of harmful substances shall comply with the provisions of Table 2. Table 2 shoes and bags with adhesive harmful substances project index Solvent-based water-based Benzene/(g/kg) ≤ 5.0 - Toluene Xylene/(g/kg) ≤ 200.0 - Free toluene diisocyanate a/(g/kg) ≤ 10.0 - Hexane/(g/kg) ≤ 150.0 - 1,2-dichloroethane/(g/kg) ≤ 5.0 - Total halogenated hydrocarbons (including 1,2-dichloroethane, dichloromethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane ≤ 50.0 - Total Volatile Organic Compounds/(g/L) ≤ 750 100 a polyurethane adhesive to be tested in this project. Test Method 4

4.1 Substrate and Surface treatment and sample preparation Accordance with the procedure provided by the adhesive supplier Surface treatment and sample preparation are sticky material, without specifying methods can also be specified in Appendix A get on.

4.2 Tack After sample preparation time by the cool set adhesive supplier park, as no method can also be specified after sample preparation parked 2min, press GB/T 532-2008 provisions peel test.

4.3 The peel strength After sample preparation, at a temperature of $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$, relative humidity of $50\% \pm 5\%$ parked five days, conducted according to GB/T 532-2008 requirements Peel test.

4.4 heat aging resistance After sample preparation, temperature of $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$, relative humidity of $50\% \pm 5\%$ parked for five days and then parked at a temperature of $50\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ 5 days, according to GB/T 532-2008 requirements peeling test.

4.5 Shear strength After sample preparation, according to the provisions of GB/T 7124-2008 the shear test, the sample holder separation speed of $25\text{mm/min} \pm 2\text{mm/min}$.

4.6 creep Press HG/T 2815-1996 regulations. Test temperature of $50\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$, load weight

and the hook on the total mass of 1.5kg, loading Time 10min.

4.7 benzene content Performed according to GB 18583-2008 Appendix B requirements.

4.8 Toluene and Xylene Performed according to GB 18583-2008 Appendix C requirements.

4.9 free toluene diisocyanate content Performed according to GB 18583-2008 Appendix D provisions.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document. Determination of

GB/T 532-2008 vulcanized rubber or thermoplastic rubber and fabric adhesive strength

GB/T 606-2003 Chemical Reagent Moisture common method Karl Fischer method
Laboratory use specifications and test methods GB/T 6682-2008 Analysis

GB/T 7124-2008 Determination of tensile shear strength of the adhesive (rigid material of rigid material)

GB/T 13354-1992 adhesive liquid density measurement method of weight cup

GB 18583-2008 interior decoration materials, adhesives harmful substances General requirements for

HG/T 2198 vulcanized rubber physical test method

HG/T 2815-1996 shoe adhesives heat resistance test method Creep Provisions of

HG/T 3075 adhesive product packaging, labeling, transportation and storage QB/T 2780-2006 PU leather uppers

2.0 Accelerant TMTD

0.6 HAF

3 Requirements

3.1 for soles with uppers and soles of shoes with overlapping adhesive bonding properties of adhesive should meet the requirements in Table 1. Table 1 shoes with adhesive properties of adhesive Item Index Tack/(N/mm) $\geq$

5.1 Inspection classification

5.1.1 factory inspection Shoe adhesives factory inspection items. tack, peel strength, resistance to heat aging. Visco material was provided by the manufacturer or in accordance