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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 42298-2022

Hand protection - General requirement

手部防护 通用技术规范

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Standardization Administration of China

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1 Scope

GB 42298-2022 is the Chinese national standard on hand protection - general requirement, in the field of environment and health protection, safety. 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 29 December 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2024. Classification: ICS 13.340.40, CCS C73. 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.

This document specifies the types, general technical requirements, markings, and information of protective gloves, and describes the testing methods corresponding to the general technical requirements. This document applies to protective equipment that protects the hands or extends the protection to the arms, or to protective gloves that are part of overall protective equipment.

2 Normative references

The following documents contain the provisions which, through normative reference in this document, constitute the essential provisions of this document. For the dated referenced documents, only the versions with the indicated dates are applicable to this document; for the undated referenced documents, only the latest versions (including all the amendments) are applicable to this document.

GB/T 12624-2020 Hand protection - General test methods

GB/T 17592 Textiles - Determination of the banned azo colorants

GB/T 19942 Leather and fur - Chemical tests - Determination of banned azo colorants

GB/T 22807 Leather and fur - Chemical tests - Determination of chromium(VI) content: Colorimetric method

GB/T 23344 Textiles - Determination of 4-aminoazobenzene

GB/T 33390 Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials

GB/T 33391 Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine polycyclic aromatic hydrocarbon (PAH) in footwear materials

GB/T 38402 Leather and fur - Chemical tests - Determination of chromium(VI) content: Chromatographic method

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 hand The end part of the arm beyond the wrist. NOTE: It also includes the palm and fingers.

3.2 glove Protective equipment that is used to protect the hand or part of the hand from injury. NOTE: The length can also be increased to cover the forearm and the entire arm. [Source: GB/T 12903-2008, 8.1.1, modified]

3.3 dexterity The convenient degree of the fingers when grasping an object with gloves.

3.4 hazard Potential personal injury or health threat.

4 Types of protective gloves

Protective gloves are classified into certain types based on their protective functions or usage occasions. Typical protective glove types are as follows: -- Protective gloves against mechanical hazards; -- Protective gloves against chemicals and microbes; -- Protective gloves against thermal damage; -- Cold-proof gloves; -- Electrically insulating gloves; -- Anti-static gloves; -- Protective gloves against ionizing radiation and radioactive pollutants; -- Ozone and oxidizing chemical-resistant gloves; -- Protective gloves against cuts and stab wounds with hand-held knives; -- Protective gloves against hand-held chain saws; -- Anti-vibration gloves; -- Protective gloves for general occupational use; -- High-visibility protective gloves for occupational use; -- Protective gloves for emergency rescue; -- Welder

protective gloves.

5 General technical requirements

5.1 Glove design and structural requirements Protective gloves shall be designed and manufactured under foreseeable conditions of use to ensure that the wearer can carry out normal activities under certain protection. For reusable multi-layer gloves composed of two or more layers of materials (excluding limited-use gloves), they shall be able to be removed without separating the inner layer of the glove. When stitches are included in the construction of the glove, the material and strength of the stitches shall not reduce the overall performance of the glove.

5.2 Harmlessness

5.2.1 General requirements Protective gloves shall not compromise the hygiene and health of the user. The materials used in gloves shall not release any harmful substances such as toxic, carcinogenic, induction of genetic mutation, sensitization, reproductive toxicity, corrosiveness, or irritation during normal use. The harmlessness of glove materials shall be determined through the tests specified in 5.2.2~5.2.6. NOTE: The classification and definition of hazardous substances can be obtained from the information provided by the References.

5.2.2 pH value All gloves shall have a pH greater than

3.5 and less than 9.5. Gloves made of leather and textile materials shall be tested in accordance with the requirements of

4.1.1 in GB/T 12624-2020.

6.1 Marking

6.1.1 Identity markings on gloves The markings on each glove shall contain at least the following content: -- The name, trademark, or other identification method of the manufacturer or the authorized representative; -- Glove name (commercial name or code); -- Glove size; -- The implementation standard number of the glove; -- The production date, including the year, month, or batch number at least; -- If applicable to the product, the storage period and storage conditions shall be marked according to 6.1.3. The markings on the gloves shall be clearly visible throughout the foreseeable service life of the gloves. Marks or inscriptions that are confusingly similar to a glove's identity markings shall not be printed on the glove. If marking on a glove is not possible due to the nature of the product, the marking shall be printed on the packaging or documentation accompanying the glove.

6.1.2 Markings for minimum outer packaging of gloves The minimum outer packaging of gloves shall contain the following markings: -- Full name and address of the manufacturer or the authorized representative; -- The production date of the product, including the year,

month, or batch number at least; -- All information in

6.1.1 shall be included; -- Tips for reading the instructions for use in detail; -- When the gloves can only protect against the hazards listed in Appendix A, the words "Minimum hazard protection" shall be printed on the outer packaging; -- When gloves comply with one or more specific standards, graphic symbols that comply with the requirements of Appendix B shall be used, and each graphic symbol shall be accompanied by the applicable standard number and performance level; -- The method of indicating performance levels in graphic symbols shall be consistent with the specific provisions in specific product standards; -- When the protective effect of the gloves is limited to part of the hand, it shall be explained.

6.1.3 Storage period and storage conditions If the protective performance of the gloves will be affected by storage time or storage environment, the storage period and appropriate storage conditions of the gloves shall be marked on the gloves and packaging.