



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

GB/T 14214-2019

Spectacle frames - General requirements and test methods

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Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 14214-2003 "Spectacle frames - General requirements and test methods". Compared with GB/T 14214-2003, the main technical changes of this Standard are as follows.

- Delete tensile properties from mechanical stability (see 5.7.1 of the 2003 edition);
- CHANGE "Plating adhesion" to "Adhesion of coating layer" (see 4.7.2; 5.8.1 of the 2003 edition);
- ADD test methods for materials other than metallic materials (see 8.5);
- Modify the test conditions for resistance to perspiration. The lowest part of the sample is 15 mm +/- 3 mm above the solution, which is changed to not less than 12 mm (see 8.4.2.1; 9.7.2.1 of the 2003 edition);
- ADD the requirements for nickel release and corresponding test method (see 4.2.2 and 5.2);
- ADD the requirements for resistance to optical radiation and corresponding

test method (see 4.10 and 8.9).

This Standard uses the redraft law to modify and adopt ISO 12870.2016

"Ophthalmic optics - Spectacle frames - Requirements and test methods".

Compared with ISO 12870.2016, this Standard has a lot of adjustments in structure. Annex A lists the comparison table for clause-subclause number of this Standard and ISO 12870.2016.

The main technical differences between this Standard and ISO 12870.2016 and their reasons are as follows.

- As for the normative references, this Standard has adjusted the technical differences, to adapt to the technical conditions of China. The adjustments are mainly reflected in Clause 2 "Normative references". The specific adjustments are as follows.

? ADD GB/T 11533 (see 7.2.1);

? Replace ISO 105-A02 with GB/T 250-2008 identical to the international standard (see 4.10);

? Replace ISO 11381 with GB/T 197 which modifies and adopts the international standard (see 4.5);

? Replace ISO 3696 with GB/T 6682 which modifies and adopts the international standard (see 8.4.1.4);

? Replace ISO 105-B02 with GB/T 8427 which modifies and adopts the international standard (see 8.9.1.2);

? Replace ISO 7998 with GB/T 26397 which modifies and adopts the international standard (see Clause 3);

? Replace ISO 8624.2011 with GB/T 38004 identical to the international standard (see 4.4);

? Replace ISO/TS 24348.2014 with GB/T 38009 which modifies and adopts the international standard (see 4.2.2);

? Delete ISO 8596 and ISO 11380;

- ADD terms and definitions "metal frame", "plastic frame", "boxed measurement system", "boxed center", "distance between centre", "horizontal boxed lens size", "distance between lenses", and "overall length of side" (see 3.4 to 3.11);
- ADD "4.7.2 Adhesion of coating layer" requirement and "8.5 Adhesion of coating layer" test method;
- Unify the material used for rimless and semi-rimless frames in 6.1.1 "test lens" and modify it to "resin material";
- In Table 1, add the provision that "The subclauses with which compliance is optional for dimensional tolerances of rimless and semi-rimless mounts (4.4) do not include the overall length of side";
- ADD "9.2 Label identification".

The following editorial changes have been made to this Standard.

- Modify standard name;
- Delete ISO 12870.2016 Clause 11 "Reference to this International Standard", Annex A (Informative) "Recommendations for the design of spectacle frames", and Annex C (Informative) "European requirements and legislation on nickel release";
- ADD Annex A (Informative) "Comparison table for clause-subclause number of this Standard and ISO 12870.2016";
- ADD Annex C (Informative) "Composition of nominal materials".

This Standard was proposed by and shall be under the jurisdiction of China National Light Industry Council.

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The previous editions of the standard replaced by this Standard were released as follows.

- GB/T 14214-1993, GB/T 14214-2003.

Spectacle frames - General requirements and test methods

1 Scope

This Standard specifies the technical requirements for spectacle frames, the selection of test samples, sample pretreatment and requirements, testing, inspection and compliance, test methods, and marking.

2 Normative references

The following documents are indispensable for the application of this document.

For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

GB/T 197 General purpose metric screw threads - Tolerances (GB/T 197-2018, ISO 965-1:2013, MOD)

3 Terms and definitions

The terms and definitions defined in GB/T 26397 and the following ones apply to this document. In order to facilitate the use, some of the terms and definitions in GB/T 26397 are repeatedly listed below.

4 Technical requirements

If a spectacle frame is manufactured using materials (e.g. plastics, alloys, coatings or pigments) not previously used in spectacle frame manufacture, the clinical evaluation shall be made according to the appropriate standard(s), either using the spectacle frame itself or using studies where the identical material is used in other medical devices.