

ICS 11.040.70

CCS C40



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

GB/T 11417.7-2012

**Ophthalmic optics - Contact lenses - Part 7: Physicochemical
properties test methods**

眼科光学 接触镜 第7部分: 理化性能试验方法

Issued on: December 31, 2012

Implemented on: June 1, 2013

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

"Optics - Contact lenses" and GB/T 28539 "Ophthalmic optics - Contact lenses and contact lens care products preservative uptake and release Guidelines for determination of discharge "and GB/T 28538" Ophthalmic optics - Contact lenses and contact lens care products rabbit eye test compatibility of "common structure Contact lens into the national standards. "Optics - Contact lenses" is divided into nine sections.

--- Part 1. Vocabulary, classification and identification of recommended specifications; (GB/T 11417.1)

--- Part 2. rigid contact lenses; (GB 11417.2)

--- Part 3. soft contact lenses; (GB 11417.3)

--- Part 4. Test standard salt solution; (GB/T 11417.4)

--- Part 5. Test methods for optical properties; (GB/T 11417.5)

--- Part 6. Mechanical test methods; (GB/T 11417.6)

--- Part 7. Test methods for physical and chemical properties; (GB/T 11417.7)

--- Part 8. determination of validity; (GB/T 11417.8)

--- Part 9. ultraviolet and visible radiation aging test (in vitro method); (GB/T 11417.9) This is Part 7. Rules in this section in accordance with GB/T 1.1-2009 given draft. This technical content part reference ISO 18369-4.2006 "Ophthalmic optics - Contact lenses - Part 4. Physical and chemical properties test method" and ANSI Z80.20-2004 "ophthalmic contact lens standard terminology, tolerances, measurement and physicochemical properties."

Please note that some of the content of this document may involve patent issuing authority of this document does not assume responsibility for the identification of these patents. This

part is proposed by the State Food and Drug Administration. This part of the National Optics and Photonics Standardization Technical Committee medical optical instruments and Technical Committee (SAC/TC103 / SC1) centralized. This section drafted by: State Food and Drug Administration Hangzhou Medical Device Quality Supervision and Inspection Center, Zhejiang Medical Devices Unit The inspection. The main drafters of this section. Wen Yan, JIA Xiao Hang, He Tao, Qi Weiming, Zhang Li, Huang precisely. Ophthalmic optics Contact lenses Part 7. Test methods for physical and chemical properties

1 Scope

GB/T 11417.7-2012 is the Chinese national standard on ophthalmic optics - contact lenses - part 7: physicochemical properties test methods, in the field of health care technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 December 2012 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 June 2013. Classification: ICS 11.040.70, CCS C40. 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.

GB/T 11417.7 gives the test methods for physical and chemical properties of the contact lens material, including extraction, oxygen permeability coefficient, refractive index, and the water content Contact angle. This section applies to a contact lens physical and chemical properties of the test.

2 Normative references

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

GB/T 6682-2008 analytical laboratory use specifications and test methods

GB/T 11417.1-2012 Ophthalmic optics - Contact lenses - Part 1. Vocabulary, classification and identification specifications recommended

GB 11417.2-2012 optics - Contact lenses - Part 2. rigid contact lenses

GB 11417.3-2012 optics - Contact lenses - Part 3. Soft contact lenses

GB/T 11417.4-2012 Ophthalmic optics - Contact lenses - Part 4. Test standard saline solution

GB/T 11417.6-2012 Ophthalmic optics - Contact lenses - Part 6. Test methods for mechanical properties

3 Terms and Definitions

Terms and definitions GB/T 11417.1-2012 defined in this document apply. Physical and chemical properties of the contact lens 4

4.1 Test methods, units, repeatability Table 1 has been used in the production of hydrogel contact lens and physicochemical properties of the hydrogel material is non-measurable. In addition, Table 1 to A test method for these properties, units and repeatability. The use of other test methods should also comply with the following provisions. Table

1 Physical and chemical properties of test methods, units, repeatability Item Unit Test Method for Measuring the repeatability B extracted mass fraction

4.3 The refractive index of

0.01 dimensionless

4.4 Moisture content of 2% (absolute value) 4.5% The contact angle of 2 ° (°)

4.6 aDk unit is 10⁻¹¹ (cm²/s) [mLO₂/(mL · hPa)]. b according to the GB/T 11417.1-2012 terms and definitions, these repeatable test results established by independent laboratories.