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

GB/T 26332.6-2022

**Optics and photonics - Optical coatings - Part 6: Minimum
requirements for reflecting coatings**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is Part 6 of GB/T 26332 "Optics and Photonics Optical Films". GB/T 26332 has issued the following

part.

- Part 1. Definition;
- Part 2. Optical properties;
- Part 3. Environmental adaptability;
- Part 4. Specified test methods;
- Part 5. Basic requirements for anti-reflection coatings;
- Part 6. Basic requirements for reflective film;
- Part 7. Basic requirements for neutral beamsplitters;
- Part 8. Basic requirements for laser optical films.

This document is modified to adopt ISO 9211-6:2018 "Optics and Photonics Optical Films Part 6. Basic Requirements for Reflective Films".

The technical differences between this document and ISO 9211-6:2018 and their reasons are as follows.

--- In the introductory words of "Terms and Definitions", the content about maintaining the "standardized terminology database" of ISO and IEC has been deleted (see Section 3 Chapter), because my country's national standards do not involve the maintenance of the "standardized terminology database" of ISO and IEC ;

--- Deleted the word "coating" in "Symbol Identification" (see Chapter 4). Because compared with "REcoating", it is simpler to write "RE"

It is clean and clear without causing ambiguity, and at the same time conforms to the application habits of the industry;

--- Replace ISO 9211-1 with normatively quoted GB/T 26332.1 (see Chapter 3), GB/T 26332.2 instead of ISO 9211-2

(See Chapter 8) to adapt to the technical conditions of our country;

---Because the serial number of the specific test method is quoted in the text, the normative referenced GB/T 26332.3-2015 is used instead of ISO 9211-3

(see 7.6, 7.7, 7.8), GB/T 26332.4-2015 replaces ISO 9211-4 (see 7.4, 7.5), GB/T 12085.2-2022 replaces

ISO 9022-2 (see 7.9), in order to adapt to the technical conditions of our country.

The following editorial changes have been made to this document.

---In "Basic Requirements", change the table descriptions of "Table 2" and "Table 3" in the original text of the international standard to the text descriptions (see Section Chapter 7).

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

Optical thin film components are widely used in various fields of science and technology related to optics and photonics to realize reflection, beam splitting, filtering, etc.

Different optical functions such as light are irreplaceable and important components in the optical system. With the continuous advancement of science and technology, optical thin film components

It is developing in the direction of higher performance requirements and more diversified demand types. Therefore, it is necessary to formulate a set of technology specifically for optical thin film technology.

National standards with content in line with international standards. This is not only conducive to promoting the standardized and orderly development of my country's optical film industry, but also better promotes related industries.

trade, exchanges and technical cooperation in the field of GB/T 26332 "Optics and Photonics Optical Films" was drafted under this background

fixed.

GB/T 26332 adopts the series of international standards ISO 9211 and is proposed to consist of eight parts.

--- Part 1. Definitions. The purpose is to standardize the technical expressions of general terms related to optical films.

--- Part 2. Optical properties. The purpose is to standardize the description of various spectral characteristics of optical thin films.

--- Part 3. Environmental adaptability. The purpose is to establish the applicable environmental test method for investigating the environmental adaptability of optical thin film components.

--- Part 4. Specified test methods. The purpose is to supplement the detailed technical requirements of several environmental test methods, part 3

The test methods are cited in.

--- Part 5. Basic requirements for anti-reflective coatings. The purpose is to specify the basic requirements for anti-reflection coatings.

--- Part 6. Basic requirements for reflective film. The purpose is to specify the basic requirements for commonly used metallic reflective coatings.

--- Part 7. Basic requirements for neutral beamsplitters. The purpose is to specify the basic requirements for commonly used neutral beamsplitters.

--- Part 8. Basic requirements for laser optical films. The purpose is to specify the basic requirements for commonly used laser optical films.

The first four parts of GB/T 26332 series standards are general specifications for optical films, and the rest are for specific application directions.

Optical films specify the basic technical requirements. This document is concerned with reflective coatings that are widely used in optical systems. The main function of the reflective film

It can increase the reflection of the optical surface and is often used on the surface of various mirrors. This document is based on the different characteristics of aluminum or silver metal reflective film

Classification is carried out, the naming rules and graphic marking methods are proposed, and the corresponding spectral characteristics, environmental adaptability and thin film defect technology are given.

Require.

Optics and Photonics Optical Films

Part 6.Basic requirements for reflective film

1 Scope

This document specifies the basic requirements for optical properties, mechanical properties, chemical stability and environmental adaptability of metallic reflective films.

This document applies to metallic reflective coatings based on aluminum or silver for optical applications. This document satisfies the film manufacturer's choice of materials and

It also enables users to accurately understand the relevant quantitative regulations of the film product.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 12085.2-2022 Optics and Photonics Environmental Test Methods Part 2.Low temperature, high temperature, damp heat (ISO 9022-2.

2015, MOD)

GB/T 26332.1 Optics and Photonics Optical Films Part 1.Definitions (GB/T 26332.1-2018, ISO 9211-1.

2010, IDT)

GB/T 26332.2 Optics and Photonics Optical Films Part 2.Optical Properties (GB/T 26332.2-2015,

ISO 9211-2.2010, IDT)

GB/T 26332.3-2015 Optical and Photonic Optical Films Part 3.Environmental Adaptability (ISO 9211-3.2008,