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Measuring method for temperature coefficient of refractive index of optical glass—Part 1: Minimum deviation method

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In the event of any doubts arising as to the contents,
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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Optical Glass Manufacturers' Association (JOGMA)/Japanese Standards Association (JSA) with a draft prepared from the association standard (**JOGIS 18**) of JOGMA being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

JIS B 7072 series consists of the following 2 parts under the general title *Measuring method for temperature coefficient of refractive index of optical glass*:

Part 1: Minimum deviation method

Part 2: Interferometry

Measuring method for temperature coefficient of refractive index of optical glass—Part 1: Minimum deviation method

1 Scope

This Japanese Industrial Standard specifies a method for determination of temperature coefficient of refractive index of optical glass, by measuring refractive index which changes with the temperature change of the optical glass using the minimum deviation method.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7071-1 *Measuring method for refractive index of optical glass—Part 1: Minimum deviation method*

JIS Z 8120 *Glossary of optical terms*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS Z 8120**, and the following apply.

3.1

temperature coefficient of refractive index

value obtained by first determining refractive indices n_1 and n_2 at optical glass temperatures of T_1 and T_2, respectively, and then dividing the difference between n_1 and n_2 by the difference between T_1 and T_2

3.2

temperature coefficient of absolute refractive index

temperature coefficient of refractive index of optical glass in vacuum

3.3

temperature coefficient of relative refractive index

temperature coefficient of refractive index of optical glass in the air where the temperature is the same as that of the optical glass, the atmospheric pressure is $1.013\,25 \times 10^5$ Pa and the relative humidity is 0 %

3.4

thermal chamber

device having a structure capable of changing the temperature of a specimen of which the temperature coefficient of refractive index is measured