

Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Principle
5	Apparatus
5.1	Apparatus arrangement
5.2	Optical module of interferometer
5.3	Reference flat
5.4	Standard mirror
5.5	Image sensor
5.6	Computer data collecting, processing and displaying system
5.7	Thickness measurement equipment
6	Test conditions
6.1	Temperature
6.2	Relative humidity
6.3	Vibration isolation
6.4	Airflow
7	Sample
7.1	Outline
7.1.1	Wedge shaped sample
7.1.2	Parallel plane sample
7.2	Thickness
7.3	Wedge angle
7.4	Polished surfaces
7.4.1	Wedge shaped sample
7.4.2	Parallel plane sample
8	Procedure
8.1	Four-step method
8.2	Two-step method
9	Data processing
9.1	Calculation of refractive index error distribution with the four-step method
9.2	Calculation of refractive index error distribution with the two-step method
9.3	Calculation of the PV value and the standard deviation value of refractive index
10	Calculation of measurement value and measurement uncertainty
10.1	Calculation of measurement value
10.2	Calculation of measurement uncertainty
10.3	Frequency of measuring sample
11	Expanded uncertainty of the measurement
12	Test Report

Annex A (informative) Infrared interferometer

Annex B (informative) Temperature stability for homogeneity measurements

Annex C (informative) Flatness of sample

Annex D (informative) Test record for homogeneity of infrared optical materials

Page count: 19