

ISO 18369-3:2017-08 (E)

Ophthalmic optics - Contact lenses - Part 3: Measurement methods

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Methods of measurement for contact lenses	1
4.1	General	1
4.2	Radius of curvature	2
4.2.1	General	2
4.2.2	Optical spherometry (rigid contact lenses)	3
4.2.3	Sagittal height method	6
4.3	Label back vertex power	11
4.3.1	General	11
4.3.2	Focimeter specification	11
4.3.3	Calibration	12
4.3.4	Focimeter measurement of rigid lenses	13
4.3.5	Focimeter measurement of hydrogel lenses	13
4.3.6	Measurement of hydrogel contact lenses by immersion in saline	13
4.3.7	Addition power measurement	14
4.4	Diameters and widths	14
4.4.1	Total diameter	14
4.4.2	Zone diameters and widths	19
4.5	Thickness	20
4.5.1	General	20
4.5.2	Dial gauge method	20
4.5.3	Low-force mechanical gauge method	21
4.6	Edge inspection	22
4.7	Determination of inclusions and surface imperfections	22
4.8	Spectral transmittance	23
4.8.1	General	23
4.8.2	Instrument specification, test conditions and procedure	23
4.9	Saline solution for testing	24
4.9.1	General	24
4.9.2	Formulation	24
4.9.3	Preparation procedure	25
4.9.4	Packaging and labelling	25
5	Test report	26
Annex A (informative) Measurement of rigid contact lens curvature using interferometry		27
Annex B (informative) Measurement of label back vertex power of soft contact lenses immersed in saline using the Moiré deflectometer or Hartmann methods		29
Annex C (informative) Measurement of the radius of curvature of contact lenses using the ophthalmometer		33
Annex D (informative) Paddle support for focimeters used for power measurements of contact lenses		38
Bibliography		40