

DIN EN ISO 12870:2012-07 (E)

Ophthalmic optics - Spectacle frames - Requirements and test methods (ISO 12870:2012)

Contents		Page
Foreword		
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Requirements	5
4.1	General	5
4.2	Physiological compatibility	6
4.3	Measurement system	7
4.4	Dimensional tolerances on nominal size	7
4.5	Tolerance on screw threads	7
4.6	Dimensional stability at elevated temperature	7
4.7	Resistance to perspiration	7
4.8	Mechanical stability	8
4.9	Resistance to ignition	9
4.10	Resistance to optical radiation	9
5	Selection of test samples	9
5.1	General	9
5.2	Testing for nickel release	9
5.3	Change in spectacle frame model	9
6	Preparation and conditioning of test samples	9
6.1	Test lenses	9
6.2	Sample conditioning and test conditions	10
7	Testing, inspection and compliance	10
7.1	Testing	10
7.2	Inspection and examination	11
7.3	Compliance	11
8	Test methods	12
8.1	General	12
8.2	Test for dimensional stability at elevated temperature	12
8.3	Test for resistance to perspiration	13
8.4	Bridge deformation and lens retention test	14
8.5	Endurance test	16
8.6	Test for resistance to ignition	17
8.7	Test for resistance to optical radiation	18
8.8	Nickel release	19
9	Marking	19
10	Additional information to be supplied by the manufacturer or other person placing the product on the market	22
11	Reference to ISO 12870	23

Annex A (informative) Recommendations for the design of spectacle frames	24
Annex B (informative) Examples of layout of test equipment	26
Annex C (informative) Examples of locations for cutting metal spectacle frames before testing for nickel release	29
Annex D (informative) European requirements and legislation on nickel release	30
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EC Directive 93/42/EEC	31
Bibliography	33