DIN EN 208:2010-04 (E)

Personal eye-protection - Eye-protectors for adjustment work on lasers and laser systems (laser adjustment eye-protectors)

Contents

Page

Foreword 3

1 Scope 4

2 Normative references 4

3 Requirements 4
3.1 Spectral transmittance of filters and frames 4
3.2 Luminous transmittance of filters 5
3.3 Resistance of filters and frames to laser radiation 5
3.4 Refractive values of filters and eye-protectors 6
3.5 Quality of material and surface of filters 6
3.6 Stability of filters and eye-protectors to ultraviolet radiation and to elevated temperature 6
3.7 Resistance of filters and frames to ignition by contact with hot surfaces 7
3.8 Field of vision of eye-protectors 7
3.9 Construction of filters 7
3.10 Construction of frames 7
3.11 Mechanical strength of eye-protectors 7

4 Testing 8
4.1 General 8
4.2 Spectral transmittance of filters and frames 9
4.3 Luminous transmittance of filters 9
4.4 Resistance of filters and frames to laser radiation 9
4.5 Refractive value of filters and eye-protectors 9
4.6 Quality of material and surface of filters 10
4.7 Stability to UV radiation and stability to elevated temperature 10
4.8 Resistance of filters and frames to ignition by contact with hot surfaces 10
4.9 Field of vision of eye-protectors 10
4.10 Determination of the protected range 10
4.11 Frames 10
4.12 Mechanical strength 10

5 Information supplied by the manufacturer 11

6 Marking 11

Annex A (informative) Principle 14

A.1 Class 2 lasers 14
A.2 Beam reduction and time base 14
A.3 Resistance to laser radiation 14
A.4 Example test report 16

Annex B (informative) Recommended use of laser adjustment eye-protectors 18

B.1 General 18
B.2 Continuous wave lasers 18
B.3 Pulsed lasers 19

Annex C (informative) Significant technical changes between this European Standard and the previous edition 21

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC 22

Bibliography 23