DIN EN 18100:2026-09 (E)

Mountaineering equipment - Helmets for ski mountaineers - Safety requirements and test methods

Contents

Page

European foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 6

4 Requirements 9
4.1 Construction requirements 9
4.1.1 Materials 9
4.1.2 Design 9
4.1.3 Retention system 9
4.1.4 Ventilation 9
4.1.5 Field of vision 9
4.1.6 Ergonomics 10
4.1.7 Weight information 10
4.2 Performance requirements 10
4.2.1 Shock absorption 10
4.2.2 Penetration 10
4.2.3 Retention system strength 10
4.2.4 Retention system effectiveness (roll off) 10
4.2.5 Non-integral additional protective device(s) 10

5 Test methods 11
5.1 General examination of material and construction 11
5.2 Retention system design 11
5.3 Ventilation test 11
5.4 Ergonomics 11
5.4.1 General 11
5.4.2 Procedure 12
5.5 Sampling 12
5.6 Helmet adjustment 12
5.7 Conditioning 12
5.7.1 General 12
5.7.2 UV ageing 13
5.7.3 Ambient conditioning 13
5.7.4 "Thermal plus" conditioning 14
5.7.5 "Thermal minus" conditioning 14
5.8 Headforms 14
5.9 Force transmission 14
5.9.1 Impact points 14
5.9.2 Principle 15
5.9.3 Apparatus 16
5.9.4 Procedure 17
5.9.5 Report 17
5.10 Determination of shock absorption capacity 17
5.10.1 Apparatus 17
5.10.2 Impact test area 17

5.10.3 Procedure 19
5.10.4 Report 19
5.11 Resistance to penetration 19
5.11.1 Impact area 19
5.11.2 Principle 19
5.11.3 Apparatus 20
5.11.4 Procedure 22
5.11.5 Report 22
5.12 Determination of retention system strength 22
5.12.1 Apparatus 22
5.12.2 Procedure 22
5.12.3 Report 22
5.13 Retention system effectiveness 22
5.13.1 Principle 22
5.13.2 Apparatus 23
5.13.3 Procedure 23
5.13.4 Report 25

6 Marking 25

7 Manufacturer's instructions and information 25

Annex A (informative) Recommendations on the materials and construction for thermal comfort of helmets for ski mountaineers 26

Annex B (informative) Mountaineering equipment standards 27

Annex ZA (informative) Relationship between this European Standard and the essential Requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment aimed to be covered 29

Bibliography 31