

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