

DIN EN 893:2019-10 (E)

Mountaineering equipment - Crampons - Safety requirements and test methods

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Safety requirements	8
4.1	Shape and design	8
4.2	Prevention against slippage	8
4.3	Strength	8
4.3.1	Hardness	8
4.3.2	Bending and breaking strength of spikes	9
4.3.3	Transverse strength of bails of clip-on bindings	9
4.3.4	Strength of binding parts other than bails	9
4.3.5	Strength of attachment rings and eyes and of the appropriate part of the binding	9
4.3.6	Longitudinal strength of the frame	9
5	Test methods	10
5.1	Test samples	10
5.2	Test conditions	10
5.3	Test apparatus for bending strength on spikes	10
5.4	Test procedure	12
5.4.1	Shape, design and hardness	12
5.4.2	Prevention against slippage	12
5.4.3	Bending strength test on spikes	13
5.4.4	Transverse strength test on bails	14
5.4.5	Strength test of binding parts other than bails	16
5.4.6	Strength test of binding closures	18
5.4.7	Strength test of attachment rings and eyes and of the appropriate part of the binding	18
5.4.8	Longitudinal strength test of the frame	18
6	Marking	19
7	Information supplied by the manufacturer	20
Annex A (informative) Standards on mountaineering equipment		21
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		23