

DIN EN 16899:2018-07 (E)

Sports and recreational equipment - Parkour equipment - Safety requirements and test methods

Contents		Page
European foreword		5
Introduction		6
1	Scope	8
2	Normative references	8
3	Terms and definitions	8
4	Materials and structural integrity	12
4.1	Requirements for materials	12
4.1.1	General	12
4.1.2	Concrete	12
4.1.3	Wood	12
4.1.4	Metals	13
4.1.5	Rubbers and synthetics	13
4.2	Requirements for structural integrity and loading	13
4.3	Requirements for foundations and groundwork	15
5	Safety requirements	15
5.1	Sporting ability	15
5.2	Access restrictions	15
5.3	Accessible surfaces, profiles and edge chamfers	17
5.4	Parkour bars and rails	18
5.5	Enclosed passage ways	19
5.6	Protection against injuries during movement and falling	19
5.7	Clearances	19
5.8	Entrapment	20
5.8.1	Entrapment of hair and clothing	20
5.8.2	Entrapment of the head and neck	20
5.8.3	Completely bound openings	20
5.8.4	Partially bound and V-shaped openings	21
5.8.5	Body and finger clearances	21
5.9	Separation from other facilities and activities	21
6	Dimensions	21
6.1	Landings	21
6.2	Impact attenuating surface (IAS) and critical fall height	22
6.3	Maximum height of any element or part of equipment	22
6.4	Maximum free height of fall	22
6.5	Extent of the falling space	23
7	Installation, inspection and maintenance	24
7.1	Installation	24
7.1.1	General	24
7.1.2	Information sign/board	25
7.1.3	Level mark	25
7.2	Inspection	25
7.2.1	General	25
7.2.2	Inspection of impact attenuating surfacing	25

7.2.3	Inspection schedule	25
7.2.4	Frequency of inspections	26
7.3	Maintenance	26
7.3.1	General	26
7.3.2	Routine maintenance	26
7.3.3	Corrective maintenance	27
8	Operation	27
8.1	General	27
8.2	Specific requirements	27
8.2.1	Personnel	27
8.2.2	Documentation	28
8.2.3	Procedures	28
8.2.4	Personnel and public safety	29
8.2.5	Equipment alterations	29
8.2.6	Supervised settings	29
9	Labelling/markings	29
10	Information to be provided by the manufacturer/supplier	29
10.1	General product information	29
10.2	Pre-information	30
10.3	Installation information	30
Annex A (normative) Method of determining structural integrity		32
A.1	General principle	32
A.2	User load	33
A.3	Safety factors	33
A.4	Self-weight	33
A.5	Physical testing	33
A.6	Horizontal stability	33
Annex B (normative) Number of users on the equipment		34
B.1	General	34
B.2	Number of users on a point	34
B.3	Number of users on line type elements	34
B.4	Number of users on an area	34
Annex C (normative) Impact test method		35
C.1	Principle	35
C.2	Apparatus	35
C.3	Procedure	36
Annex D (normative) Assessment of surface area of a landing		37
D.1	Principle	37
D.2	Apparatus	37
D.3	Procedure	38
Annex E (normative) Test method for entrapment		40
E.1	General	40
E.2	Head and neck entrapment	40
E.3	Body and finger clearances	46
Bibliography		48