

# DIN EN 12572-1:2007-07 (E)

## Artificial climbing structures - Part 1: Safety requirements and test methods for ACS with protection points

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	5
4	Safety requirements and test methods .....	6
4.1	Layout and placement of individual protection points .....	6
4.2	Design of individual top protection points .....	8
4.3	Dimensions .....	8
4.4	Structural Integrity .....	9
4.4.1	Structural integrity of an ACS .....	9
4.4.2	Structural integrity of a protection point connection .....	10
4.5	Impact resistance of surface elements .....	10
4.6	Hold insert resistance .....	10
4.7	Proof testing .....	10
4.8	Falling space .....	10
4.9	Free space .....	11
4.10	Climbing surfaces .....	11
5	Marking .....	11
6	Instruction manual .....	12
7	Conformity of ACS .....	12
Annex A (normative) Effects .....		13
A.1	Permanent effects .....	13
A.2	Variable effects .....	13
A.2.1	General .....	13
A.2.2	User loads .....	13
A.2.3	Snow loads .....	13
A.2.4	Wind loads .....	14
A.2.5	Effects of temperature .....	14
A.2.6	Special loads .....	14
Annex B (normative) Method of calculation of structural integrity .....		15
B.1	General principles .....	15
B.1.1	Limit state .....	15
B.1.2	Ultimate limit state .....	15
B.2	Combination effects for the ultimate limit state .....	16
B.3	Structural stability .....	16
Annex C (normative) Load testing of structural integrity of protection point connections .....		17
C.1	General .....	17
C.2	Apparatus .....	17

C.3	Sampling .....	17
C.4	Procedure .....	17
Annex D (normative) Impact test of surface elements .....		18
D.1	General .....	18
D.2	Apparatus .....	18
D.3	Sampling .....	18
D.4	Procedure .....	18
Annex E (normative) Hold insert resistance test .....		21
E.1	General .....	21
E.2	Apparatus .....	21
E.3	Sampling .....	21
E.4	Procedure .....	21
Annex F (normative) Proof testing .....		23
F.1	General .....	23
F.2	Procedure .....	23
F.2.1	General .....	23
F.2.2	Protection points .....	23
Annex G (normative) Inspection and maintenance .....		26
Bibliography .....		28