

DIN EN 1728:2012-10 (E)

Furniture - Seating - Test methods for the determination of strength and durability

Contents		Page
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	General test conditions	6
4.1	Preliminary preparation	6
4.2	Application of forces	6
4.3	Tolerances	6
6	Test procedures - Chairs other than Work Chairs	16
6.1	General	16
6.2	Determination of seat and back loading points	17
6.2.1	General	17
6.2.2	Seating with a back rest	17
6.2.3	Seating without a back rest	17
6.3	Determination of Back Angle	19
6.4	Seat static load and back static load test	20
6.5	Seat Front Edge Static Load	22
6.6	Vertical load on back rests	22
6.7	Horizontal forward static load test on back rests	23
6.8	Foot rest static load test	23
6.9	Leg rest static load test	23
6.10	Arm rest sideways static load test	24
6.11	Arm rest downwards static load test	24
6.12	Headrest static load test	25
6.13	Vertical upwards static load on arm rests	26
6.13.1	Seating which may be moved when occupied	26
6.13.2	Stacking seating	26
6.14	Vertical static load on auxiliary writing surfaces	26
6.15	Leg forward static load test	26
6.16	Leg sideways static load test	27
6.17	Combined seat and back durability test	28
6.18	Seat front edge durability test	30
6.19	Durability test on seating with a multi-position back rest	31
6.20	Arm rest durability test	31
6.21	Foot rest durability test	31
6.22	Auxiliary writing surfaces durability test	32
6.23	Tipping seat operation	32
6.24	Seat impact test	32
6.25	Back impact test	33
6.26	Arm rest impact test	34
6.27	Drop tests	35
6.27.1	Drop test for multiple seat units	35
6.27.2	Drop test for stacking seating	36
6.27.3	Drop test from the height of a table	37
6.28	Backward fall test	38
6.29	Castor and chair base durability	38
6.30	Rolling resistance of the unloaded chair	39
7	Test procedures - Work Chairs	39

7.1	General	39
7.2	Loading points	40
7.2.1	General	40
7.2.2	Loading point A	40
7.2.3	Loading point B	40
7.2.4	Loading point C	41
7.2.5	Loading point D	41
7.2.6	Loading point E	41
7.2.7	Loading point F	41
7.2.8	Loading point G	42
7.2.9	Loading point H	42
7.2.10	Loading point J	42
7.3	Combined seat and back static load test	42
7.4	Seat front edge static load test	43
7.5	Arm rest downward static load test - central	43
7.6	Arm rest downward static load test - front	44
7.7	Arm rest sideways static load test	45
7.8	Foot rest static load test	45
7.9	Seat and back durability	45
7.10	Arm rest durability	46
7.11	Swivel test	46
7.12	Foot rest durability	46
7.13	Castor and chair base durability	46
7.14	Rolling resistance of the unloaded chair	47
8	Test procedures - Loungers	47
8.1	General	47
8.2	Seat and back static load test	47
8.3	Additional seat and leg rest static load test	47
8.4	Seat and back durability test	48
8.4.1	Seat and back durability test procedure	48
8.4.2	Additional seat durability test procedure	49
8.5	Durability test on back rest mechanism	50
8.6	Arm rest downwards static load test	50
8.7	Arm rest durability test	50
8.8	Impact test	50
8.9	Lifting test for mobile loungers	52
	Annex A (normative) Seat loading pad data	54
	Annex B (informative) Arm rest loading pad details	57