

Updates for Furniture Test Standards (2) – EN 581-2:2009

The European pre-standard **ENV 581-2:2000** which had been used over 9 years for evaluation of the safety and performance requirements for outdoor seating, was finally revised and approved by the Technical Committee CEN/TC 207 “Furniture” into an official European Standard **EN 581-2:2009**.

EN 581-2:2009 supersedes ENV 581-2:2000 and all CEN members are required to adopt this new standard into their national standards and withdraw the conflicting standards at the latest by October, 2009.

Similar to the pre-standard, **EN 581-2:2009** specifies the mechanical safety requirements and test methods of outdoor seating for camping, domestic and contract use for adults, without regard to materials, design / construction or manufacturing processes. However, outdoor furniture for severe contract use, and information regarding ageing and degradation caused by light, temperature and moisture are not covered by this standard. All test requirements in this standard are evaluated based on use by persons weighing up to 110 kg.



Compared to the pre-standard, there are significant changes in this new **EN 581-2:2009** but merely as an improvement such that the standard is easier to read and follow. Listed below are some highlights for the changes.

- ❖ Simplify the “**General test conditions**” such as preliminary preparation, determination of seat and back loading points, application of forces, etc. by **referencing to EN 1728:2000**. Conditioning period of outdoor seating was changed from the original of one week down to **at least 24 hours**.
- ❖ Similar to other furniture standards, **tests, test sequence and test parameters** were illustrated in table format covering test items in the following sequences.

Test	Outdoor seating (Camping / Domestic / Contract)	Loungers
	Test Sequence	Test Sequence
Seat and back static load test (EN 1728:2000, 6.2.1)	1	1
Seat front edge static load test (EN 1728:2000, 6.2.2)	2 ^{a), b)}	---
Seat and back ^{a)} fatigue test for seating (EN 1728:2000, 6.7)	3	2
Fatigue test on back rest mechanism (EN 581-2:2009, Annex A)	4 ^{a)}	3
Arm downwards static load test (EN 1728:2000, 6.6)	5 ^{b)}	4
Arm fatigue test (EN 1728:2000, 6.10)	6 ^{b)}	5
Leg forwards static load test (EN 1728:2000, 6.12)	7 ^{b)}	---
Leg sideways static load test (EN 1728:2000, 6.13)	8 ^{b)}	---
Seat impact test (EN 1728:2000, 6.15)	9 ^{b)}	6
Foot rail static test for high seating (EN 1728:2000, 6.4)	10 ^{a)}	---
Lifting test (EN 581-2:2009, B.2.1.7)	---	7
Forward stability (EN 1022:2005, 6.2-6.3)	11	9
Rearward stability (EN 1022:2005, 6.6)	12	---
Sideways stability (EN 1022:2005, 6.4-6.5)	13	8

^{a)} These tests are not available in ENV 581-2:2000.

^{b)} Test parameters were revised in EN 581-2:2009.

^{c)} “Cyclic test on backrest”, “Test of alternating forces on the backrest for reclining seating”, “Backrest impact test”, and “Arm impact test” specified in ENV 581-2:2000 were removed in EN 581-2:2009.

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❖ Add a new section **6.2 Requirements** to address:

- **General safety requirements** (6.2.1 - follows the general safety requirements of EN 581-1)
- **Stability requirements** (6.2.2 - follows the stability requirements of EN 1022)
- **Mechanical safety requirements** (6.2.3)

❖ Add a new section **7 Instruction for Use** to cover:

- **General requirements (7.1)**

- (1) Instructions shall be provided in the country language headed "**IMPORTANT, RETAIN FOR FUTURE REFERENCE: READ CAREFULLY**" in letters ≥ 5 mm high.
- (2) These instructions shall include at least: producer's (manufacturer's or supplier's) name and address, maintenance information, and conditions for use of the products.

- **Marking for mobile loungers (7.2)** - Mobile loungers not intended to be lifted and moved when loaded shall be marked with the pictogram (Fig. 1).

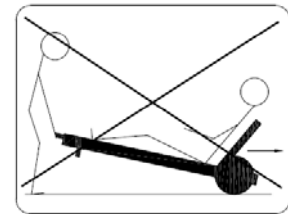


Fig. 1

❖ For reporting of test result, the test report shall include a **compliance statement with the requirements**.

❖ The test for "Behaviour of outdoor seating at high and low temperature" under Annex A of ENV 581-2:2000 was removed in EN 581-2:2009.

❖ Add **Annex C for Guideline of Purchase Information**.



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