

DIN ISO 7170

ICS 97.140

**Furniture –
Storage units –
Determination of strength and durability (ISO 7170:2005)
English version of DIN ISO 7170:2007-02**

Möbel –
Schränke und Regale –
Bestimmung der Festigkeit und Dauerhaltbarkeit (ISO 7170:2005)
Englische Fassung DIN ISO 7170:2007-02

Document comprises 36 pages



National foreword

This standard has been prepared by Technical Committee ISO/TC 136 “Furniture”.

The responsible German body involved in its preparation was the *Normenausschuss Holzwirtschaft und Möbel* (Timber and Furniture Standards Committee), Technical Committee NA 042-05-02 AA *Kastenmöbel für Küchen/Wohnbereich und Bad*.

International Standard ISO 7170:2005 “Furniture — Storage units — Determination of strength and durability” has been adopted as German standard without any modifications.

Contents

Page

1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	General test conditions	7
4.1	Preliminary preparation	7
4.2	Test equipment	8
4.3	Application of forces	8
4.4	Tolerances	8
4.5	Sequence of testing	8
4.6	Prevention of movement during test	8
4.7	Load on parts not subject to testing	9
4.8	Inspection and assessment of results	9
5	Test apparatus	9
6	Test procedures for non-movable parts	10
6.1	Shelves	10
6.1.1	General	10
6.1.2	Shelf retention test	10
6.1.3	Deflection of shelves	10
6.1.4	Strength of shelf supports	10
6.2	Tops and bottoms	12
6.2.1	Sustained load test for tops and bottoms	12
6.2.2	Static load test for tops and bottoms	12
6.3	Strength of clothes rails and their supports	12
6.3.1	Strength of clothes-rail supports	12
6.3.2	Dislodgement of clothes rails	13
6.4	Strength of the structure	13
6.4.1	Test for structure and underframe	13
6.4.2	Drop test	15
6.4.3	Tests for units with castors or wheels	15
7	Test procedures for movable parts	15
7.1	Pivoted doors	15
7.1.1	General	15
7.1.2	Strength of pivoted doors	16
7.1.3	Slam-shut test of pivoted doors	17
7.1.4	Durability of pivoted doors	18
7.2	Sliding doors and horizontal roll-fronts	19
7.2.1	General	19
7.2.2	Slam shut/open test of sliding doors and horizontal roll-fronts	19
7.2.3	Durability of sliding doors and horizontal roll-fronts	19

7.3	Flaps	21
7.3.1	Strength of bottom-hinged flaps	21
7.3.2	Durability of flaps	21
7.3.3	Drop test for top-hinged flaps	21
7.4	Vertical roll-fronts	22
7.4.1	Slam shut/open of vertical roll-fronts	22
7.4.2	Durability of vertical roll-fronts	23
7.5	Extension elements	23
7.5.1	General	23
7.5.2	Strength of extension elements	23
7.5.3	Durability of extension elements	24
7.5.4	Slam shut/open test of extension elements	25
7.5.5	Displacement of extension element bottoms	25
7.5.6	Interlock test	26
7.6	Locking and latching mechanism tests	26
7.6.1	General	26
7.6.2	Strength test for locking and latching mechanisms for extension elements	26
7.6.3	Locking and latching mechanisms for doors, flaps and roll-fronts	27
7.6.4	Durability test of locking and latching mechanisms	27
8	Units mounted to the building or other structure	27
8.1	Units not supported by the floor	27
8.1.1	General	27
8.1.2	Movable parts, shelf supports, tops and bottoms	27
8.1.3	Sustained load test (overload)	28
8.1.4	Dislodgement test	28
8.2	Units supported by the floor	28
9	Test report	28
Annex A (informative)	Guidance for the choice of loads, cycles, etc. for storage furniture strength and durability tests	30
Annex B (normative)	Test apparatus for slam-shut/open test of extension elements	33